ADOLESCENT FEMALE ATHLETES' COPING WITH SOCIAL PHYSIQUE ANXIETY

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ABSTRACT

The purpose of this study was to explore how adolescent female athletes cope with social physique anxiety (SPA) within the context of sport. The participants of this study were 73 female athletes ranging in age from 13 to 19 years (M = 15.5, SD = 1.7). The participants provided coping responses to a self-identified situation within sport in which they experienced SPA. Measures of state and trait SPA, coping function, coping effectiveness, and reasons for sport participation were also completed.

The female adolescent athletes reported a total of 129 strategies (an average of 1.77 strategies per participant) to cope with their SPA provoking situation, with a range of 1 to 4 coping strategies identified by each participant. Social support (reported by 31.5% of participants), behavioural avoidance (reported by 23.3% of participants), short-term appearance management (reported by 23.3% of participants), humour (reported by 23.3% of participants), cognitive avoidance (reported by 19.3% of participants), and acceptance (reported by 17.8% of participants) were among the coping strategies reported by the highest number of participants. The number of open-ended coping strategies reported was significantly related to State SPA (r = .34, p < .05). Trait SPA was significantly related to avoidance coping function (r = .21, p < .05).

This study supports that within the context of sport the way in which female adolescents cope with situations they experience SPA is similar, yet unique, to outside of this specific context. Most coping strategies appear to be consistent in coping with SPA across various contexts outside of sport, such as social support, acceptance, avoidance, and appearance management. It is important to note that consistent with the literature, there was much diversity in what functions were associated with various coping

strategies. However, uniqueness occurred as other coping strategies emerged, such as humour, in the context of sport. This study has potential to act as a starting point to better understand the complex links among coping strategies, function, and effectiveness for adolescent females coping with SPA.

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TABLE OF CONTENTS

PERMISSION TO USE i

ABSTRACT ii

ACKNOWLEDGEMENTS iv

TABLE OF CONTENTS v

LIST OF TABLES vii

LIST OF APPENDICES viii

CHAPTER 1 1

1.1 INTRODUCTION 1

1.2 REVIEW OF LITERATURE 3

1.2.1 SPA 3

1.2.2 Adolescent Female Athletes 4

1.2.3 Coping 6

1.2.4 Functions of Coping 8

1.2.5 Effectiveness of Coping 9

1.2.6 Female Athletes Coping with SPA 10

1.3 RESEARCH QUESTIONS 13

CHAPTER 2 17

2.1 METHODS 17

2.1.1 Participants 17

2.1.2 Measures 18

2.1.2.1 Demographics 18

2.1.2.2 State SPA 18

2.1.2.3 Coping 21
2.1.2.3.1 Open-Ended Coping Responses 21
2.1.2.3.2 Skinner et al.'s (2003) Families of Coping 22
2.1.2.4 Trait SPA 27
2.1.2.5 Reasons for Sport Participation Inventory 30
2.1.3 Procedure 31
2.1.4 Data Analysis 32
CHAPTER 3 34
3.1 RESULTS 34
3.1.1 Descriptive Statistics and Scale Reliabilities 34
3.1.2 Exploration of Research Questions 37
3.2 DISCUSSION 42
3.2.1 Research Questions 42
3.2.2 Limitations of the Study 52
3.2.3 Strengths of Study 55
CHAPTER 4 57
4.1 SUMMARY AND CONCLUSIONS 57
4.2 RECOMMENDATIONS FOR FUTURE RESEARCH 58
REFERENCES 62
APPENDIX 69

LIST OF TABLES

Table 2.1. Sport Participation Demographics 19

Table 2.2. Categories for Coding of Open-Ended Coping Responses (Kowalski et al., 2006). 23

Table 2.3. Skinner et al.'s (2003) Families of Coping 28

Table 3.1. Descriptive Statistics for SPA and Skinner et al.'s (2003) Families of Coping 35

Table 3.2. Associated Function for Open-Ended Coping Responses of Participants Reporting a Sport-Related Situation in which they Experienced SPA 36

Table 3.3. Descriptive Statistics for Reasons for Sport Participation 38

Table 3.4. Open-Ended Coping Responses and Associated Effectiveness for Participants Reporting a Sport-Related Situation in which they Experienced SPA 40

Table 3.5. Correlations Between SPA and Skinner et al's (2003) Families of Coping 41

LIST OF APPENDIX

Appendix A – Ethics approval 69

Appendix B – Consent / Assent Form 71

Appendix C – Questionnaire 74

CHAPTER 1

1.1 INTRODUCTION

Adolescence is a relatively stressful time for many individuals, as numerous novel changes and challenges are presented. During adolescence, youth experience a changing body, are required to play new social roles, and are often faced with increased social ridicule and criticism (Leary & Kowalski, 1995). It is no surprise then that body concerns can be a significant source of stress (Cecil & Stanley, 1997; Crocker, Snyder, Kowalski, & Hoar, 2000). In addition, adolescents tend to be more self-conscious as they become aware of the link between peer acceptance and how they are perceived. This social influence, combined with the predominant role of the physical self in current culture, contributes to adolescents' feelings of uncertainty, insecurity, and anxiety about their bodies (Eklund & Bianco, 2000).

Body issues are especially salient when adolescents are concerned that the presentation of their body might not meet the expectation of others (Leary & Kowalski, 1995). Self-presentation theory states that individuals attempt to control the impressions that others form of them; therefore, the goal is to create desired impressions of oneself, while avoiding undesirable impressions (Leary & Kowalski, 1995). This is accomplished by selective self-presentations, as well as selective omissions of one's

characteristics in social encounters. When adolescents are unsure that their desired impressions can be achieved, they may experience social anxiety. Social anxiety occurs from the prospect or existence of interpersonal evaluation in actual or imagined social settings (Leary & Kowalski, 1995). However, self-presentation is a specifically useful theory when attempting to address anxiety related to an individual's physical characteristics, especially when the anxiety is generated from a social environment. This emotional experience is often termed social physique anxiety (SPA) (Hart, Leary, & Rejeski, 1989).

The objective of my study is to explore how adolescent female athletes cope with SPA within the context of sport. Although there are a number of studies that have looked at SPA in sport (e.g., Crocker et al., 2000; Hausenblas & Mack, 1999; Martin & Mack, 1996) and coping with SPA with non-sport populations (e.g., Kowalski, Mack, Crocker, Niefer, & Fleming, 2006; Sabiston, Sedgwick, Crocker, Kowalski, & Mack, 2007), to date little is known about the complex process of coping surrounding SPA and the sport environment. Because little is known, this will be a exploratory study that will attempt to provide insight into questions, such as: Is trait SPA (i.e., general SPA) related to state SPA (i.e., SPA experienced within the context of sport) for athletes? What coping strategies do adolescent female athletes use as ways of managing SPA experienced in sport? Are the strategies associated with the level of SPA experienced? What are the functions (i.e., goals) of those coping strategies? Do they think that the coping strategies they use are effective, both over the short-term and long-term? How is state and trait SPA related to reasons athletes have for participation in sport? Insight into these questions will assist in understanding the potential uniqueness of the sport context in relation to the SPA experiences of female adolescent athletes.

1.2 REVIEW OF LITERATURE

1.2.1 SPA

Hart et al. (1989) introduced SPA as the anxiety experienced by an individual in response to others' evaluation of his/her physique. A number of research articles have been published addressing trait SPA in relation to other constructs, such as physical characteristics, reasons for exercise, exercise setting preferences, and eating behaviour (e.g., Cox, Lantz, & Mayhew, 1997; Crocker et al., 2000; Eklund & Crawford, 1994; Hart et al., 1989; McAuley & Burman, 1993; Spink, 1992).

Many physical characteristics have demonstrated associations with trait SPA. In particular, researchers have identified that, regardless of gender, individuals with a higher percentage of body fat are more likely to experience trait SPA (Cox et al., 1997; Hart et al., 1989). As well, weight and height have been found to be positively correlated with trait SPA (Crocker et al., 2000; Hart et al., 1989).

There are a range of psychological/social constructs that have also been shown to be related to trait SPA. Trait SPA has been positively associated with self-presentation reasons for exercise, such as body tone, weight control, and physical attractiveness (Eklund & Crawford, 1994). Furthermore, McAuley and Burman (1993) demonstrated that the degree of trait SPA is inversely related to perceived physical ability and physical self-presentation confidence. The choices and attitudes towards public versus private settings, as well as the amount an exercise setting emphasizes or deemphasizes physique salience, have also been associated with trait SPA (Eklund & Crawford, 1994; Spink, 1992). Specifically, Spink (1992) found that female exercisers who reported higher levels of trait SPA preferred private over public exercise settings; participants in a study by Eklund and Crawford (1994) displayed more favourable attitudes toward less

revealing clothing in the exercise setting when compared to individuals with lower levels of trait SPA. Cox et al. (1997) found that trait SPA, gender, and body fat combined were able to predict 34% of disordered eating behaviours.

1.2.2 Adolescent Female Athletes

As a result of the natural process of increased body fat during adolescence being at odds with the societal ideal of a thin feminine physique (Levine & Smolak, 2002), female adolescents in particular are vulnerable to self presentational concerns regarding their physique (Crocker et al., 2000). The specific focus of this study will be on young women involved in sport.

A unique element of the female athlete's sport environment is the inherent focus and importance of physicality. Simply stated, sport places the physical body on center stage (Greenleaf, 2002). Within the sport context, the body is often seen as "an objective, mechanical object that can be dissected, conditioned, and utilized as an instrument for performance and to increase one's physical attractiveness" (Cox & Thompson, 2000, p. 6). These distinctions regarding the processes, requirements, and ideals of the female athlete's body create the dynamics and complexities of a unique population in which it is important to explore and understand body-related concerns.

Cox and Thompson (2000) reflected on the complexity and importance of body issues for women in sport. They discussed how a strong physical presence gained by women through sport was mediated by a desire to be seen as feminine. In addition, they stated: "Because the body is central to the sporting experience, female players continually have to negotiate the overlapping and at times contradictory discourse of sport, gender, and heterosexuality" (p. 17). The dilemma then faced by many young female athletes is that the sport requirements may be at odds with the natural biological

processes of adolescent development (e.g., as in gymnastics), or at odds with the thin feminine body ideal due to the development of muscle mass.

When participation in certain sports places demands upon the body during training and competition that draw the body further away from feminine ideals, athletes may interpret these sport-related body alterations as not meeting social and/or personal ideals. This perception may create the potential for significant internal conflict regarding the benefit of sport. For different athletes, this conflict may resonate both inside and outside the sport context. Within sport individuals may pursue activities that will take them closer to their ideals, even if it will harm their athletic performance (e.g., restrictive eating behaviour, overtraining, skipping strength programs). Whereas outside of the sport context, this conflict may arise in situations where the inability to meet the cultural ideal is amplified (e.g., shopping for clothes). Because of the potential for concerns over body evaluation both within and outside the sport context, the concept of SPA seems to be very relevant for adolescent female athletes.

Although some speculation has been made on the relationship between SPA and different types of sports, at present, research is not conclusive in regard to this relationship. However, there is evidence to suggest that SPA concerns likely span a wide array of sports. Crocker et al. (2000) found no evidence of a relationship between trait SPA and type of sport with a sample of 13- to 18-year-old female athletes from Saskatchewan. Similarly, Krane, Stiles-Shipley, Waldron, and Michalenok (2001) found that different types of athletic uniforms were not related to a difference in trait SPA. Thus, regardless of type of sport, or even the attire that is worn, SPA might still be experienced.

Overall, a critical question that needs to be addressed is: How are female adolescent athletes actually coping with their SPA experiences? The answer to this question should begin with a discussion around the general construct of coping.

1.2.3 Coping

Richard Lazarus' (1991) Cognitive-Motivational-Relational Theory has been a prominent theoretical framework used to understand the coping process in sport. Lazarus and Folkman (1984) defined coping as "constantly changing cognitive and behavioural efforts to manage specific external or internal demands (and conflicts between them) that are appraised as taxing or exceeding the resources of the person" (p. 141). According to Lazarus' (1991) theory, coping is an important aspect of any emotional experience, including anxiety.

Lazarus (1991) has used the Cognitive-Motivational-Relational Theory as a mechanism to explain the dynamic nature and unique emotional processes experienced by individuals. Through cognitive appraisal, an individual evaluates whether her/his encounter with the environment is relevant to personal well-being and the potential harm or benefit presented by a situation. This stage of cognitive appraisal is identified as primary appraisal. For example, a female athlete who must gain muscle mass to increase sport performance may perceive this as either beneficial or detrimental in attempting to meet the demands of social or personal ideals, commitments, or goals. Through secondary appraisal, the individual identifies coping options that may reduce harm or increase the potential for benefit in a situation. For example, the athlete may identify a potential coping option, such as not gaining muscle mass at the expense of athletic performance, which reduces the potential for personal/social harm; in contrast, she could accept/restructure her personal ideals to assist in identifying the muscle mass

as beneficial. In any single stressful encounter, individuals usually use a number of coping strategies available to them (Folkman & Lazarus, 1980).

Examining coping with a contextual or situational focus can offer many insights into the process of coping. Lazarus (1990) discussed the importance of focusing on coping with state stressors rather than attempting to understand how individuals usually cope with certain situations. He postulated that by focusing on coping through trait measurement, a researcher captures only a vague understanding of responses and focuses on ways individuals prefer to cope, instead of how the individual actually copes with a particular stress that is experienced. However, researchers have also identified limitations associated with an overuse of this process approach (Lazarus, 1999; Skinner, Edge, Altman, & Sherwood, 2003). Trait perspectives are sometimes necessary to understand the coordination and coping responses to deal with life, such as life goals, personality variables, and outlooks that make individuals progress steadily towards an adaptational direction (Lazarus 1999).

Regardless of whether one chooses a trait or process approach, a significant limitation in coping research is that there is little consensus of how to conceptualize ways of coping (Skinner et al., 2003). Skinner et al. (2003) offered a conceptual framework to examine the structure of coping that distinguishes levels in order to conceptualize coping. In reference to this conceptual model Skinner et al. (2003) stated, "the central notion is that the structure of coping spans the conceptual space between instances of coping and adaptive processes" (p. 217). Based on a thorough review of the coping literature, they presented 12 general Families of Coping, including problem-solving, information seeking, helplessness, escape, self-reliance, support seeking, delegation, isolation, accommodation, negotiation, submission, and opposition.

Although comprehensive and potentially useful, this framework presents a challenge for understanding coping within the body domain. For example, a strategy such as "physical activity" is suggested to be a type of accommodation (more specifically a distraction); however, within the body domain, physical activity might just as easily be classified as a problem-solving strategy (because of its potential to alter the body). Thus, while the framework of Skinner et al. (2003) is useful, more relevant frameworks to categorize coping strategies in specific domains are likely needed as well. The challenge is finding a balance between including coping strategies that are appropriate for their constructs and population, but still allow comparison with other coping research studies. Including coping strategies that are appropriate is necessary in order to make sure that the range of coping options is represented and suitable for the situation. Comparison between studies facilitates a better understanding of the general coping construct, as well as, to identify similarities and differences in coping across different contexts.

1.2.4 Functions of Coping

In addition to the need to understand the specific coping strategies that are utilized by young women to manage SPA, it is also important to understand the goals, or functions, of those strategies. It is important to note that the perceptions of the individual play an important role in defining the function of the strategy. The concept of coping function is distinctively different from the notion of coping outcome, which indicates the effect of the coping response (Lazarus & Folkman, 1984).

An important distinction at a functional level that is often made in the literature is between problem-focused coping and emotion-focused coping. Problem-focused coping can be described as efforts that help an individual to change the actual situation

in some way. An example would be a young woman who used physical activity in order to tone her body and appear fit. Emotion-focused coping, on the other hand, is an attempt to change the way a situation is looked at or interpreted. An example would be a young athlete who convinced herself that she was overestimating how much other people cared what she looks like. A third goal of coping often included in the literature is avoidance coping in which athletes would attempt to remove themselves from the stressful situation (e.g., Amirkhan, 1990, Endler & Parker, 1994, Kowalski & Crocker, 2001). An example of avoidance would be a young athlete who quit her sport because she was uncomfortable with wearing a revealing uniform. Hart et al. (1989) indicated that those individuals with high trait SPA are more likely, compared to those who have low trait SPA, to avoid situations in which their physique will be scrutinized. However, it is important to note that coping strategies often are utilized for multiple functions in many situations (Folkman & Lazarus, 1985).

1.2.5 Effectiveness of Coping

Coping has been noted as an important factor in the relationship between stressful events and adaptational outcomes (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986); hence, another aspect of coping that is important to address is coping effectiveness. However, surprisingly, the effectiveness of coping is typically overlooked within the sport coping literature, despite the concern that knowing what strategies are used by athletes provides little insight into effectiveness of those strategies (Kowalski, 2007). In relation to the coping process, one of the most important components of effectiveness is the perception of the individual who is attempting to manage the stress. Kim and Duda (2003) looked at the perceived effectiveness of coping strategies used by 318 U.S.A. athletes and 404 Korean athletes who reported

coping with psychological difficulties during important competitions. They looked at both short-term and long-term effectiveness of coping and found that problem-focused and avoidance coping were both associated with perceived short-term effectiveness, while only problem-focused coping was related to perceived long-term effectiveness. Another potential component of effectiveness is the perceived health cost/benefit of the coping strategy. When dealing with concerns related to the body, the coping strategy choices might have dramatic effects on health (Hart et al., 1989). Consequently, when attempting to identify effectiveness from an adaptational perspective it may be important to also identify the perceived health consequences to gain a more complete understanding of strategy effectiveness.

1.2.6 Female Athletes Coping with SPA

As participation in sport often occurs in a social environment, it seems reasonable that self-presentational strategies would have an impact on sport-related behaviours (Eklund & Crawford, 1994). The bulk of coping research related to sport has addressed how coping is associated with performance enhancement; however, the current literature provides some insight into the ways young female athletes *might* be coping with SPA.

Tamres, Janicki, and Helgeson (2002) conducted a meta-analysis of sex differences in coping strategies. One of the main findings of their study is that women are often more likely to engage in a vast range of coping strategies as well as expend more coping effort than men. This analysis of the general coping literature identified that strategies involving verbal expression, such as seeking emotional support, rumination, and use of positive self–talk, are the most common strategies utilized by women across a variety of situations and stressors. Social support has also been offered

as a potential strategy often utilized by females. Specifically, Carron and Prapavessis (1997) found that less state SPA was experienced by young women and men when they were with a best friend or group of friends than when they were alone; this and other studies examined in the Tamres et al. (2002) meta-analysis indicate social support as a key coping strategy for women in many different situations.

Possible insight into potential strategies utilized by female athletes to manage SPA can additionally be acquired through the original article on SPA by Hart et al. (1989). They discussed coping implications to justify the development of the SPA Scale (SPAS). They stated that individuals who accept others' views of their physiques as being favorable, or downplay others' negative reactions to their physiques, rarely experience SPA. This idea implies that perceptions of acceptance of the physique may be a key element in lowering SPA.

Hart et al. (1989) also stated that two common ways that individuals manage high SPA is through avoidance and remedial behaviours. Specifically they discussed the implications that SPA may have for physical activity involvement. They suggested that SPA can be a motivator of exercise behaviour or deter others from participating. They also discussed the importance of analyzing the relationship SPA has with where, who, and why people exercise. Although they stated that SPA can be motivation to improve fitness and associated health benefits; they suggested that SPA may also be related to strategies that might be harmful, such as avoiding exercise, over-exercising, or exercising in potentially harmful ways (such as exercising in rubber suits). Other aspects of setting and attire associated with trait SPA also appear to be important, including avoidance of public settings when choosing exercise settings (Spink, 1992), preference for aerobic attire settings that do not emphasize the physique (Crawford &

Eklund, 1994), and preference for oversized clothing or exercising alone (McAuley & Burman, 1993).

Other evidence suggesting that physical activity is associated with SPA include Eklund and colleagues research (Eklund &Crawford, 1994; Eklund, Mack, & Hart, 1996) showing that trait SPA is related to self-presentation reasons for exercise and that a 20-week exercise program can help to reduce trait SPA. Furthermore, Finkenberg, DiNucci, McCune, Chenette, and McCoy (1998) showed that among 258 college women the group with the highest commitment to physical activity had the lowest trait SPA scores. Thus, in addition to linking SPA with physical activity as a potential coping strategy, these studies demonstrate the importance of understanding the relationship between social physique and reasons for participation in physical activity.

Although not specific to the sport context, two recent studies have directly explored female adolescents' coping with SPA (Kowalski et al., 2006; Sabiston et al., 2007). Kowalski et al. (2006) coded the open-ended coping strategies reported by 398 adolescent females who were asked to describe the strategies they used to deal with a self-reported situation in which social physique was experienced (i.e., State SPA). They found State SPA significantly related to both Trait SPA (r = .44) and the number of strategies reported (r = .21). Also, using a 24 dimension taxonomy of coping, developed within that study, the most commonly reported coping strategies were behavioural avoidance (reported by 41.5% of females), appearance management (reported by 39.9% of females), social support (reported by 22.1% of females), cognitive avoidance (reported by 20.4% of females), and acceptance (reported by 19.6% of females). However, a wide variety of other coping strategies, such as physical activity, communication with the evaluator, leisure activity, diet, cognitive problem-solving,

emotional expression and humour were also reported by many of the participants. Alternatively, Sabiston et al. (2007) used focus group methodology to explore the coping strategies reported by 31 adolescent females. They found strategies could be coded into 10 sub-themes, including strategies such as behavioural and cognitive avoidance, appearance management, diet, social support, physical activity, reappraisal, cognitive deflection and comparison to others, seeking sexual attention, and substance use. While these studies provide important insight into the coping process associated with SPA, how adolescent *athletes* specifically are coping with SPA in sport remains largely unexplored. Additionally, Skinner et al.'s (2003) framework for coping might be a useful alternative to understand coping in response to specific situation in which SPA is experienced, although to my knowledge this has not been done to date.

1.3 RESEARCH QUESTIONS

Based on the above review of the literature, the purpose of this study was to explore coping strategies utilized by adolescent female athletes to manage SPA. Specific research questions addressed within this study were:

1. *Is age related to state and trait SPA?* Levine and Smolak (2002) reported that girls' satisfaction with body parts and overall appearance has been shown to decline from ages to 12-15, but then levels off and possibly even increases in later adolescence. In addition, previous research has shown that trait SPA can fluctuate from grades 9 to 11 for adolescent females (Crocker, Sabiston, Kowalski, McDonough, & Kowalski, 2006). Thus, given these findings, it seems important to explore whether age is related to both state and trait SPA.

2. *Are the number of coping strategies reported by athletes related to the level of state SPA?* The underlying question is whether more coping strategies

are used in situations in which more SPA is experienced? Previous research has shown a positive relationship between the number of coping strategies and level of state SPA (Kowalski et al., 2006) and between the number of coping strategies and level of stress across a range of stressors (Tamres et al., 2002). However, it is unclear whether the relationship between number of coping strategies and state SPA will also be found within the context of a sport situation.

3. *What strategies will athletes report to cope with state SPA?* Previous non-sport research has identified predominant coping strategies, including behavioural avoidance, short-term appearance management, social support, cognitive avoidance, and acceptance (Kowalski et al., 2006). It is unclear whether the same strategies would be reported within the context of sport or whether other important coping strategies will emerge. This question will be explored both in the context of strategies identified in an open-ended format, as well as in the context of Skinner et al.'s (2003) Families of Coping.

4. *What is the relationship between trait SPA and state SPA?* To my knowledge, only one other study has looked at the relationship between trait SPA and state SPA (Kowalski et al., 2006). In that non-sport research, trait SPA was moderately related ($r = .44$) to state SPA. However, it is not clear whether there is a relationship between trait SPA and state SPA experienced within sporting situations.

5. *What coping strategies are most strongly related to state and trait SPA?* In addition to just knowing what strategies athletes report, it is also important to understand whether particular coping strategies are associated with higher or lower levels of state and trait SPA. Although strategies might be linked

to trait SPA, it is also important to understand whether specific strategies (e.g., avoidance) are used more when anxiety levels are high, which might speak to the key strategies that are used or needed more as state SPA increases. Looking at Skinner et al.'s (2003) framework, which is unique to the sport coping literature, will allow me to explore whether similar types of coping strategies will be associated with state and trait SPA using an alternative framework to the open-ended responses. The exploration across both coping response formats also provides a deeper perspective, because one approach provides an open-ended response within which the athletes will self-identify the categories, and the other approach, a more structured response approach within a hierarchical framework of coping [i.e., the Families of Coping are specified in Skinner et al.'s (2003) framework].

6. *What relationships exist between state and trait SPA and emotion-focused, problem-focused, and avoidance functions?* In the coping literature, it is sometimes unclear whether it is the strategies or the functions that are being associated with SPA. For example, Hart et al. (1989) referred to avoidance and remedial behaviours, but are unclear whether these are coping strategies or coping functions. Lazarus (1991), alternatively, identifies problem-focused and emotion-focused as coping functions. Others (e.g., Kowalski & Crocker, 2001) include avoidance as a third function of coping. Thus, across the coping literature, what specifically is a strategy and what is a function, is not clear. I hope to provide some clarity to this literature by looking at the relationship between state and trait SPA and coping by separating strategies and function.

7. *What is the relationship between emotion-focused, problem-focused, and avoidance coping functions and long-term, short-term, and health-related effectiveness?* Some suggest a direct link between strategies and functions. For example, Skinner et al.'s (2003) framework suggests a hierarchical relationship between strategies, functions, and adaptational processes. Other literature suggests an indirect link between strategies and functions. For example, strategies can serve multiple functions at the same time, but their effectiveness will depend on the match between the coping strategy and situation (Folkman, 1992; Lazarus, 1999). Thus, do athletes consider the functions they report as effective? If so, what type of effectiveness (i.e., short-term, long-term, health-related)?

8. *What is the relationship between state and trait SPA and reasons for sport participation?* Is SPA more strongly related to physique presentation motives (e.g., weight control, body tone, attractiveness) than other reasons for participation (e.g., to win, future opportunities, etc.)? This is important because certain reasons for participation might be associated with SPA experiences. Crawford and Eklund (1994) showed body tone, fitness, and physical attractiveness as reasons for participation as significant predictors of trait SPA in *exercise*; and Sabiston, Crocker, and Chandler (2005) showed weight/appearance as a reason for *exercise* related to trait SPA. However, there is lack of research exploring the relationship between and state and trait SPA and reasons for sport participation to date.

CHAPTER 2

2.1 METHODS

2.1.1 Participants

The selection criteria for participants in this study was female athletes between the ages of 13 to 19 who were part of a sport program that trained a minimum of 2 times per week during their competitive season. The age range of 13 to 19 was utilized for my study to be consistent with Kowalski et al.'s (2006) study on adolescents coping with SPA in a non-sport context. Following approval from the University of Saskatchewan Behavioural Research Ethics Board (see Appendix A), a list of Provincial Sport Organizations in Saskatchewan was obtained from the Sask Sport website (www.sasksport.sk.ca). A random draw was utilized to establish the order that these organizations were contacted; however, all organizations ended up being contacted. Originally, 79 athletes participated following signed informed consent/assent (see Appendix B). Four participants were either younger than 13 or older than 19, 1 participant was not involved in organized sport, and 1 participant was missing data on the majority of the questionnaire package; therefore, the final sample of participants in this study were 73 female athletes ranging in age from 13 to 19 years (M = 15.5, SD = 1.7).

Athletes were from a variety of sports (see Table 2.1.). Participants identified the sports they currently participated in, which ranged from 1 - 4 sports per participant (26 athletes participated in 1 sport – 35.6%, 20 athletes participated in 2 sports – 27.4%, 19 athletes participated in 3 sports – 26.0%, and 8 athletes participated in 4 sports – 11.0%, and 1 athlete participated in 5 sports - 1.4%. On average athletes participated in 2.1 sports (*SD* = 1.0). The participants were also asked to identify the level of the sports they participated in: 35.5 % sports were club level, 27.7% sports were provincial level, 31.6% sports were national level, and 5.2% sports were international level. The self-reported average height of the athletes was 165.08 cm (*SD* = 7.38) and the average weight was 56.91 kg (*SD* = 9.54).

2.1.2 Measures

All measures were included in the same questionnaire package (see Appendix C).

2.1.2.1 Demographics.

Participants were asked to indicate gender, age, height, weight, sport involvement, and corresponding team/ club names and level (club, provincial, national, and /or international).

2.1.2.2 State SPA

The state SPA measure was adapted from Kowalski et al. (2006) who developed the measure for use with an adolescent female non-sport sample. Athletes first described a situation in sport that they felt uncomfortable or nervous because their body was seen or evaluated by other people (State SPA). They were asked to "Please describe the situation that made you feel the most uncomfortable in the past year." Second, they

Table 2.1. Sport Participation Demographics

Sport	Sample (%)
Alpine Skiing	1 (1.4)
Badminton	2 (2.7)
Basketball	9 (12.3)
Cheerleading	1 (1.4)
Curling	4 (5.5)
Cycling	11 (15.1)
Dance	5 (6.8)
Diving	3 (4.1)
Fastball	6 (8.2)
Fencing	5 (6.8)
Gymnastics	3 (4.1)
Hockey	3 (4.1)
Judo	3 (4.1)
Kayaking	2 (2.7)
Racquetball	1 (1.4)
Ringette	5 (6.8)
Soccer	18 (24.7)
Softball	6 (8.2)
Speed Skating	7 (9.6)
Swimming	5 (6.8)
Synchronized Swimming	8 (11.0)

Table 2.1. (Continued) Sport Participation Demographics

Sport	Sample (%)
Track and Field	19 (26.0)
Triathlon	4 (5.5)
Volleyball	19 (26.0)
Wrestling	5 (6.8)
Total	155 (100)

Note: Sample (%) is the number (and percentage) of participants participating in the sport listed. The total of 155 reflects that of the sample of 73 athletes, many participated in more than one sport.

described why the situation made them feel uncomfortable or nervous. Third, they rated their level of state SPA on a visual analogue scale in reference to how uncomfortable or nervous they were in the situation, ranging from 0 (not uncomfortable or nervous) to 100 (extremely uncomfortable or nervous). Convergent validity was supported by Kowalski et al. (2006) via a significant relationship with trait SPA ($r = .44$, $p < .05$). All situations reported by the adolescents were double-checked and confirmed as body-evaluation scenarios.

2.1.2.3 Coping

2.1.2.3.1 Open-Ended Coping Responses

Open-ended questions were utilized to gather information on the coping strategies athletes used to cope with the experience of SPA in the self-identified situation described in Section 2.1.2.2. Participants were provided with the following instructions, "Now we are interested in the specific ways to deal with the situation that you described". They were provided instructions to fill in only as many strategies as they tried, regardless of whether or not the strategy was successful. On each page, if applicable, they completed their response to the follow item stem, "To manage the uncomfortable or nervous situation, I: _____". They then rated, for each strategy, the coping functions of the strategy; whether it was an attempt to change the situation (Problem-focused), whether it helped them to manage or control their feelings (Emotion-focused), and whether it was an attempt to physically or mentally avoid the situation (Avoidance). In addition, to assess coping effectiveness, they then rated the effectiveness of each strategy on a 5-point Likert scale ranging from 1 (not at all) to 5 (very much). Participants rated whether the strategy was to reduce the anxiety during the specific situation (short-term effectiveness; S-T EFF), to prevent the anxiety from

reoccurring (long-term effectiveness; L-T EFF), or to deal with the anxiety in a healthy way (health-related effectiveness; H EFF).

To code the coping strategies that were listed, a taxonomy of coping in the body domain was utilized (see Kowalski et al., 2006). The taxonomy was developed through a multistage process that integrates previous coping and body-related literature, both empirical and theoretical (Niefer, Kowalski, Stevens, & Crocker, 2004). The taxonomy consists of 24 dimensions, including 16 behavioural strategies, 4 cognitive strategies, 3 social support strategies, and 1 "other" category (see Table 2.2). Reliability for the taxonomy has been supported by Kappa = .86 with 111 female adolescents coping with SPA (Kowalski et al., 2006).

2.1.2.3.2 Skinner et al.'s (2003) Families of Coping

To my knowledge, there is no measure in the literature that has been developed to assess coping strategies within Skinner et al.'s (2003) Families of Coping framework; therefore, a measure was developed for this study. To assess families of coping, participants rated their use of 12 ways of coping on a 5-point scale ranging from 1 (not characteristic at all) to 5 (extremely characteristic). The 12 families of coping are Problem-solving, Information Seeking, Helplessness, Escape, Self-Reliance, Support Seeking, Delegation, Isolation, Accommodation, Negotiation, Submission, and Opposition. Within the questionnaire, the families of coping definitions were modified to wording that represented the category in a way that would be understandable to the participants. A variety of examples were also provided. To ensure the appropriateness of this wording, a pilot study with four adolescent female athletes was used to gain feedback regarding the meaning of wording and clarity of the format. They recommended minimal revisions, which were incorporated into the wording in the final

Table 2.2. Categories for Coding of Open-ended Coping Responses (Kowalski et al., 2006)

Coping Strategy	Description
Behavioural Strategies	
Aggressive Activities (AA)	Activities that may be hurtful to persons, animals, or objects; this category also includes self-harming behaviours.
Behavioural Avoidance (BA)	Behaviour that is a deliberate attempt to keep away from a stressor, including isolation and changing the topic; this category also includes hiding one's body behind external objects (other than apparel that would be considered to be worn, which would be considered short-term appearance management).
Communication with the Evaluator (CE)	Communication with an individual perceived as evaluating the physique; this includes seeking information from the evaluator, sharing thoughts and feelings with evaluator, and confronting evaluator. This category includes excuse making and justifications to the evaluator, exemplification (presenting oneself as morally worthy), and ingratiation (a general attempt to get others to like oneself).
Diet (DT)	All strategies regarding nutritional intake; this category includes strategies associated with nutritional intake impacting weight loss and/or weight increase.
Emotional Expression (EE)	Behaviour other than aggressive activities that expresses emotions; this category also includes appearing content or happy and pretending it was nothing to others.
Humour (HU)	Use of humour; this category includes laughing it off.

Table 2.2. (Continued) Categories for Coding of Open-ended Coping Responses (Kowalski et al., 2006)

Coping Strategy	Description
(Continued) Behavioural Strategies	
Increase Effort (IE)	Increasing effort in the situation, including increasing concentration; this category also includes suppression of competing activities to make the stressor the central focal point.
Leisure Activity (LA)	This category includes activities often considered as forms of leisure, but not involving physical activity; examples include reading a book, watching TV, listening to music, and playing games.
Non-Specific Weight Loss (N-SWL)	Default category for non-specific weight loss strategies (if specific strategies are indicated, such as physical activity, diet, or spitting/vomiting, they would be coded in those specific categories).
Physical Activity (PA)	This category includes all types of physical activity including exercise, sport, and other general physical activity.
Self-handicapping (S-H)	Creating an obstacle to desired impressions in the situation in order to prevent observers from making dispositional inferences about one's appearance.
Short-term Appearance Management (S-TAM)	Short-term strategies to selectively display, highlight, change, or monitor one's appearance; this category also includes covering one's body with body parts (arms, hands, etc) and apparel worn for the sake of appearance management.
Spitting/vomiting (SV)	Spitting and vomiting strategies (generally as, but not restricted to, a specific weight loss strategy).

Table 2.2. (Continued) Categories for Coding of Open-ended Coping Responses (Kowalski et al., 2006)

Coping Strategy	Description
(Continued) Behavioural Strategies	
Substance Use (SU)	The use of substances; this category includes cigarette smoking, alcohol, steroids, diet pills, diuretics, and laxatives.
Surgery (SG)	Undergoing surgical procedures (generally as, but not restricted to, an appearance management strategy).
Tension Reduction/Relaxation (TRR)	Behavioural attempts to reduce one's level of physiological, muscular, and mental tension; examples of this category include deep breathing and progressive muscle relaxation.
Cognitive Strategies	
Acceptance (AC)	Accepting the situation, including claims of responsibility for the situation and the consequences; this category also includes positive reappraisal, minimizing the importance of the situation to the self, and doing nothing.
Cognitive Avoidance (CA)	Deliberate cognitive attempts to keep thoughts away from a stressor; this category includes ignoring the situation, trying to forget about it, and/or thinking about other things.
Cognitive Problem Solving (CPS)	Thoughts focused on ways to change the situation; this category includes information seeking from all sources other than the evaluator and metal preparation (such as self talk, imagery, and goal setting). This category also includes rumination or dwelling on the situation, restraint, and seeking alternative rewards.

Table 2.2. (Continued) Categories for Coding of Open-ended Coping Responses (Kowalski et al., 2006)

Coping Strategy	Description
(Continued) Cognitive Strategies	
Wishful Thinking (WT)	Wishing that the situation will change or hoping that it will disappear on its own.
Seeking Support Strategies	
Seeking Professional Support (PS)	Getting help and advice from a professional counselor or teacher.
Social Support (SS)	Strategies involving instrumental social support and/or emotional social support; this category excludes aggressive activities, information seeking from the evaluator, and professional support.
Spiritual Support (SPS)	Thoughts and behaviours that suggest an appeal to a higher being.
Other (OT)	Strategies not classified in other categories.

questionnaire package, and supported the measure. The list of 12 families of coping and corresponding operational definitions (i.e., final wording in the questionnaire package) representing those families of coping are presented in Table 2.3.

2.1.2.4 Trait SPA

The Social Physique Anxiety Scale (SPAS) is a self-reported inventory designed as a trait measure of SPA (Trait SPA; Hart et al., 1989). The nine-item unidimemsional version of the SPAS was used in this study (Martin, Rejeski, Leary, McAuley, & Blane, 1997; Motl and Conroy, 2000). Modification of the original 12-item scale to the 9-item scale, through removal of items 1, 2 and 5, is suggested to improve the scale but still maintain factorial validity, factorial invariance, construct validity, and reliability (Martin et al., 1997; Motl & Conroy, 2000). Although researchers have questioned the unidimensionality of the SPAS, additional research using factorial analysis indicated that one factor is most appropriate (Martin et al, 1997; Motl & Conroy, 2000).

When completing the SPAS, participants were asked to indicate the degree to which each of the statements was characteristic or true of themselves. Answers were based on a 5-point Likert scale (not at all, slightly, moderately, very, and extremely characteristic) with numerical values of 1-5 assigned, respectively. The numerical values were then summed (2 items are reverse scored) to produce a total SPAS score (Trait SPA) ranging from 9 to 45, which is often reported as an average (thus, the Trait SPA score in my study ranges from 1 to 5), with higher scores indicating higher SPA. The following are examples of items, “In the presence of others I feel apprehensive about my physique/figure” and “I am comfortable how fit my body appears to others.”

Table 2.3. Skinner et al.'s (2003) Families of Coping

Family of Coping	Operational Definition
Problem Solving	Solving the Problem
Strategizing	Examples
Instrumental Action	-Thought of a plan to solve the problem
Planning	-Tried to figure out how to stop it from happening again
Information Seeking	Find Out More Information
Reading	Examples
Observation	-Asked others what they thought about the situation
Asking Others	-Observed what others did in similar situation
Helplessness	I Did Nothing
Confusion	Examples
Cognitive Interference	-My mind went blank
Cognitive Exhaustion	-I couldn't think of anything to do, so I just stopped trying and did nothing
Escape	Escape the Situation
Cognitive Avoidance	Examples
Behavioural Avoidance	-Tried to leave
Denial	-I tried to just think of something else (escape through my mind)
Wishful Thinking	
Self-reliance	Deal with it Myself
Emotion Regulation	Examples
Behaviour Regulation	-Controlled my behaviour and emotions
Emotional Expression	-Sucked it up and didn't draw attention to the situation
Emotion Approach	
Support Seeking	Get Support Through Relationships
Contact Seeking	Examples
Comfort Seeking	-I tried to get others to help
Instrumental Aid	-Looked to my friends or family to provide comfort
Spirtitual Support	-Used a spiritual aid
Delegation	Get Sympathy from Others
Maladaptive Help-seeking	Examples
Complaining	-I complained to others
Whining	-Let others know I felt shameful
Self-pity	

Table 2.3. (Continued) Skinner et al.'s (2003) Families of Coping

Family of Coping	Operational Definitions
Accommodation	Think About the Situation With A Positive Slant
Distraction	Examples
Cognitive Restructuring	-I tried to think about what I would learn from this situation
Minimization	
Acceptance	-I thought of reasons the other person's opinion of me doesn't matter
Negotiation	Negotiate With Others
Bargaining	Examples
Persuasion	-I tried to make others think differently about me and/or the situation
Priority-setting	-Persuaded others to see it from my point of view
Submission	Accept Others Opinions of Me or The Situation
Rumination	Examples
Rigid Perseveration	-I changed the way I viewed the situation or myself
Intrusive Thoughts	-Went along with what others thought about the situation
Opposition	Challenge Someone's Opinion of The Situation
Other-blame	Examples
Projection	-I blamed the situation on someone
Aggression	-Got angry at someone or the situation for being unfair

Adequate internal consistency has been demonstrated by various researchers (α = .88-.93) (Eklund & Crawford, 1994; Hart et al., 1989; Petrie et al., 1996), including adolescent females (e.g., Kowalski et al., 2006). Also, reliability of the SPAS was demonstrated (r = .82) in an 8-week test-retest format in adult aged women (Hart et al., 1989).

Various researchers have examined the validity of SPAS and found support for construct validity through positive correlations with measures of social anxiety (i.e., interaction anxiousness, r =.33; fear of negative evaluation, r =.35), public self consciousness (r = .30), weight and body shape satisfaction (r = .79), and BMI (r = .28) (Hart et al., 1989; Petrie, Diehl, Rogers, & Johnson, 1996). Negative correlations with body cathexis (r = -.79) and self-esteem (r = -.36) provide further support of this convergent validity (Hart et al., 1989; Petrie et al., 1996). Discriminant validity was demonstrated through evidence to differentiate between individuals who report high and low SPAS scores and their corresponding levels of discomfort, negative thoughts, and stress during physique evaluation (Hart et al., 1989). The SPAS is also reported to be free from social desirability bias, as demonstrated through low correlations (r = .07) with the Social Desirability Scale (Hart et al., 1989).

2.1.2.5 Reasons for Sport Participation Inventory

A modified version of Silberstein, Stiegel-Moore, Timko, and Rodin's (1988) Reasons for Exercise Inventory was used to determine the motives for sport participation of the participants. The original Reasons for Exercise Inventory has 7 categories (24 items) rated on a 7-point scale, assessing reasons for exercise. Although some research literature has examined motives individuals have for their participation in sport and physical activity, at present, research has not addressed this inquiry specific to female

adolescent athletes inclusive of reasoning that may be applicable from a body domain approach. The original Reasons for Exercise Inventory was developed within the context of the body domain, but was modified to increase its appropriateness within a sport context.

Due to the large number of categories needed to represent a wide range of reasons for sport participation, single items were chosen to represent each category. Categories that were similar between the original scale and the scale used in my study were Weight Control, Fitness, Health, Enjoyment, Attractiveness, Body Tone, and Mood. For the purpose of decreasing the number of categories to allow for the inclusion of additional sport-relevant categories, Health and Fitness were combined into one category (Health and Fitness). Additional categories were determined by recommendations made during the piloting of the questionnaire with four adolescent athletes and four women graduate students in Kinesiology. Additional categories that were added included: Challenge, To Win, Future Opportunities, Financial Gain, Respect for Myself, and Respect from Others. There was also an opportunity for the participants to add three other items to the list, in case the list did not represent all of their reasons for participation in sport.

The instructions on the Reasons for Sport Participation Inventory requested the athletes to answer from the perspective of why they currently participate in sport. The participants were instructed to score each reason within a range of 0 to 10 (0 indicating that the reason was not relevant to them and 10 being an extremely important reason).

2.1.3 Procedure

Upon the approval of the provincial or local sport organization and respective coaching staff, I or a research assistant attended a practice session to explain the

purposes and procedures of the study. We then distributed the consent/assent forms, which were taken home and filled out at their convenience by both the athletes and the athletes' parent/guardian. Forms were then returned, generally with a week, to the coaching staff. Once the informed consent and assent forms were returned, the coaching staff contacted me and/or the research assistant, and one of us then returned to administer the questionnaire package. The questionnaires were administered either in groups or one-on-one (in whatever space was available) with one of us present to answer questions. Participants first completed the demographics questions. Following the demographics questions, participants also completed an open-ended section in which they were asked to describe situations that made them uncomfortable or nervous, any overall body concerns, and how they deal with those concerns. The purpose of this section was to act as a cue to facilitate them to begin to think about issues relevant to the study. However, that data was not used in the analysis.

The remaining measures were then completed in the following order: Demographics, State SPA, open-ended coping responses, Skinner et al.'s (2003) Families of Coping, Trait SPA, and Reasons for Sport Participation Inventory. Responses were anonymous, as no name was required on the questionnaire package. Participants were provided adequate space to complete their questionnaires privately. Questionnaires took between 15-45 minutes to complete. Following completion of the questionnaire package, participants were thanked and they could request a summary of results be sent following the completion of the study.

2.1.4 Data Analysis

Data were entered into SPSS version 15.0. Subsequently, a research assistant confirmed the correctness of each entry. Variables related to participation criteria

requirements, such as self-declared gender, age, and participation in organized sport, were checked through descriptive statistics. Descriptive statistics were run for State SPA, Trait SPA, number of strategies, types of strategies, coping function, and coping effectiveness. Frequencies were run on all variables to confirm that there were no values that existed outside of the possible data range. Scale distributions, means, and variances were examined prior to analysis for the State SPA and Trait SPA scales, Skinner et al.'s (2003) Families of Coping scale, and the Reason for Sport Participation. Skewness and kurtosis were checked for all variables that would be utilized for parametric statistics.

Open-ended coping strategies were coded by two independent coders using a taxonomy of coping with body-related issues (Niefer, Kowalski, Stevens, & Crocker, 2004; Kowalski et al., 2006). Strategies on the open-ended questionnaire were reviewed to ensure that only one open-ended coping strategy was reported per section. There was only one occurrence of a participant identifying two strategies in a single section. The decision was made to separate the two strategies and provide the same corresponding function and effectiveness for each strategy. Discrepancies between coders' results were resolved through discussion following coding of all responses. Proportion of agreement after correcting for chance among the two independent coders was Kappa = .96.

Frequencies of coded open-ended strategies (percentage of participants reporting each strategy) were ranked from most to least reported. The number of strategies per participant was also identified. Correlations, Pearson *r* and Spearman *rho*, were utilized for all other research questions in this study. Pearson *r* correlations were utilized for variables that displayed parametric characteristics; whereas, Spearman correlation coefficients (*rho*) were utilized for variables that displayed non-parametric characteristics.

CHAPTER 3

3.1 RESULTS

3.1.1 Descriptive Statistics and Scale Reliabilities

Descriptive statistics for SPA (State SPA and Trait SPA) and Skinner et al.'s (2003) Families of Coping are presented in Table 3.1. All variables were normally distributed (i.e., skewness [or kurtosis] values less than three times the standard error of skewness [or kurtosis]), with the exception of the following Skinner et al.'s (2003) Families of Coping scales: Helplessness (*skew* = 1.09, SE_{skew} = 0.28), Delegation (*skew* = 1.08, SE_{skew} = 0.28), Isolation (*skew* = 1.36, SE_{skew} = 0.28), Negotiation (*skew* = 1.12, SE_{skew} = 0.28), and Opposition (*skew* = 1.65, SE_{skew} = 0.28). Internal consistency reliability (Cronbach's alpha) of the Trait SPA scale was alpha = .88. Three of Skinner et al.'s (2003) Families of Coping scales were rated above the midpoint of the scale, including Self-Reliance, Accommodation, and Problem-Solving.

Descriptive statistics for open-ended coping strategies and associated coping functions (problem-focused, emotion-focused, and avoidance-focused) are presented in Table 3.2.

Table 3.1. Descriptive Statistics for SPA and Skinner et al.'s (2003) Families of Coping

Measures	*M*	*SD*
SPA		
State SPA (scale range 1-100)	51.52	23.00
Trait SPA (SPAS; scale range 1-5)	2.85	.82
Skinner's Families of Coping (scale range 1-5)		
Self-reliance	3.58	1.18
Accommodation	3.33	1.16
Problem-solving	3.08	1.24
Support Seeking	2.55	1.13
Submission	2.52	1.17
Escape	2.36	1.18
Information Seeking	2.19	1.27
Delegation	2.01	1.07
Helplessness	1.97	1.14
Isolation	1.85	1.11
Opposition	1.73	1.08
Negotiation	1.70	0.97

Table 3.2. Associated Function for Open-Ended Coping Responses of Participants Reporting a Sport-Related Situation in which they Experienced SPA

Coping Strategies	Problem-focused %	Emotion-focused %	Avoidance %
Social Support (SS)	28.0	92.0	36.0
Behavioural Avoidance (BA)	50.0	50.0	80.0
Humour (HU)	61.1	100.0	27.8
Short-Term Appearance Management (S-TAM)	77.8	61.1	77.8
Cognitive Avoidance (CA)	37.5	62.5	81.3
Acceptance (AC)	53.3	93.3	33.3
Seeking Professional Support (PS)	20.0	100.0	20.0
Communication with the Evaluator (CE)	33.3	100.0	66.7
Increased Effort (IE)	66.7	100.0	33.3
Cognitive Problem Solving (CPS)	33.3	66.7	100.0
Diet (DT)	100.0	100.0	100.0
Emotional Expression (EE)	0.0	100.0	100.0
Non-Specific Weight Loss (N-SWL)	100.0	100.0	0.0

Descriptive statistics for reasons for sport participation are presented in Table 3.3. The reasons for sport participation scales with the highest ratings of importance were Health and Fitness, Enjoyment, Challenge, Respect for Myself, and Body Tone. However, all reasons were rated above the midpoint of the scale with the exception of Mood Regulation and Financial Gain.

3.1.2 Exploration of Research Questions

The first question was: *Is age related to state and trait SPA?* Age was significantly related to State SPA ($r = .23$, $p < .05$), but not Trait SPA ($r = -.17$, *n.s.*).

The second research question was: *Are the number of coping strategies reported by athletes related to the level of state SPA?* The number of open-ended coping strategies reported was significantly related to State SPA ($r = .34$, $p < .05$). Participants reported a total of 129 coping strategies (an average of 1.77 strategies per participant) used to manage their self-identified SPA-provoking situation. A range from 1 – 4 coping strategies were identified by the participants (27 participants reported 1 strategy [37.0%], 38 participants reported 2 strategies [52.1%], 6 participants reported 3 strategies [8.3%], and 2 participants reported 4 strategies [2.7%]. Despite the significant relationship between age and State SPA, when the partial correlation was run between State SPA and the number of coping strategies with the variance due to age accounted for, the relationship remained significant ($r_{partial} = .28$, $p < .05$).

The third research question was: *What strategies will athletes report to cope with SPA?* Social support (reported by 31.5% of participants; e.g., "Talked to a friend"), behavioural avoidance (reported by 23.3% of participants; e.g., "I left the shower, in a hurry"), short-term appearance management (reported by 23.3% of participants; e.g.,

Table 3.3. Descriptive Statistics for Reasons for Sport Participation

Reason for Sport Participation (scale range 0-10)	*M*	*SD*
Health and Fitness	9.01	1.51
Enjoyment	8.75	1.79
Challenge	7.93	2.25
Respect for Myself	7.57	2.34
Body Tone	7.45	2.62
To Win	7.01	2.57
Weight Control	6.18	3.47
Future Opportunites	6.14	2.65
Respect from Others	6.14	2.65
Attractiveness	5.60	2.83
Mood Regulation	4.90	3.04
Financial Gains	4.79	3.32

"Wore shorts with my bathing suit"), cognitive avoidance (reported by 19.3% of participants, e.g., "Ignored it while on the court"), and acceptance (reported by 17.8% of participants, e.g., "Accepted it") were among the coping strategies reported by the highest number of participants (see Table 3.4). However, humour (reported by 23.3% of participants; e.g., "Laughed it off"), was also one of the most frequently reported strategies. No other coping strategy was reported by more than 5 athletes.

The fourth research question was: *What is the relationship between trait SPA and state SPA?* Trait SPA was not related to State SPA ($r = .19$, n.s.).

The fifth research question was: *What coping strategies are most strongly related to State and Trait SPA?* Correlations were run to identify potential relationships between open-ended coping strategies with Trait SPA and State SPA. Acceptance was positively related to Trait SPA ($r = .27$, $p < .05$), and social support was positively related to State SPA ($r = .28$, $p < .05$). For Skinner et al.'s (2003) Families of Coping, Support Seeking ($r = .27$, $p < .05$) and Delegation ($rho = .39$, $p < .05$) were significantly related to State SPA; as well, Submission ($r = .25$, $p < .05$) was significantly related to Trait SPA (see Table 3.5).

The sixth research question was: *What relationships exist between state and trait SPA and emotion-focused, problem-focused, and avoidance functions?* Trait SPA was significantly related to avoidance coping function ($r = .21$, $p < .05$), and State SPA was significantly related to emotion-focused coping function ($r = .24$, $p < .01$).

The seventh research question was: *What is the relationship between emotion-focused, problem-focused, and avoidance coping functions and long-term, short-term, and health-related effectiveness?* Problem-focused coping function was the only

Table 3.4. Open-Ended Coping Responses and Associated Effectiveness for Participants Reporting a Sport-Related Situation in which they Experienced SPA

Strategy	Total (%)	Sample (%)	S-T EFF *M* (*SD*)	L-T EFF *M* (*SD*)	H EFF *M* (*SD*)
SS	25 (19.4)	23 (31.5)	3.5 (.87)	3.1 (1.17)	4.0(1.27)
BA	20 (15.5)	17 (23.3)	3.2 (1.14)	2.2 (0.99)	2.8 (0.83)
HU	18 (14.0)	17 (23.3)	3.9 (0.64)	3.3 (0.91)	3.9 (.94)
S-TAM	18 (14.0)	17 (23.3)	3.7 (1.03)	2.8 (1.31)	3.3 (1.23)
CA	16 (12.4)	14 (19.3)	3.4 (0.96)	3.6 (1.03)	3.4 (1.26)
AC	15 (11.6)	13 (17.8)	3.2 (0.94)	3.5 (1.06)	4.1 (1.28)
PS	5 (3.9)	5 (6.8)	3.8 (0.45)	2.0 (1.00)	4.8 (0.45)
CE	3 (2.3)	3 (4.1)	3.7 (1.16)	2.3 (1.16)	2.7 (1.53)
IE	3 (2.3)	3 (4.1)	3.7 (0.58)	4.3 (0.58)	4.7 (0.58)
CPS	3 (2.3)	3 (4.1)	3.7 (1.53)	3.3 (1.53)	4.7 (0.58)
DT	1 (0.8)	1 (1.4)	3 (-)	2 (-)	4 (-)
EE	1 (0.8)	1 (1.4)	2 (-)	1 (-)	4 (-)
N-SWL	1 (0.8)	1 (1.4)	4 (-)	2 (-)	4 (-)
Total	129 (100)	73 (100)	3.5 (0.95)	3.0 (1.20)	3.7 (1.21)

Note: Total (%) = The number of times the strategy was reported (and the percentage of total number of strategies reported). Sample (%) = The number of the participants reporting the strategy (and the percentage of participants reporting the strategy). S-T EFF = Short-term effectiveness. L-T EFF = Long Term Effectiveness. H EFF = Health-related Effectiveness. SS = Social Support. BA = Behavioural Avoidance. HU = Humour. S-TAM = Short-Term Appearance Management. CA = Cognitive Avoidance. AC = Acceptance. PS = Seeking Professional Support. CE = Communication with the Evaluator. IE = Increased Effort. CPS = Cognitive Problem Solving. DT = Diet. EE = Emotional Expression. N-SWL = Non-Specific Weight Loss.

Table 3.5. Correlations Between SPA and Skinner et al.'s (2003) Families of Coping

Variable	State-SPA	Trait-SPA
Problem-Solving	*r* = -.01	*r* = -.15
Information Seeking	*r* = .16	*r* = -.11
Helplessness	*rho* =.02	*rho* =.16
Escape	*r* = .20	*r* = .20
Self-Reliance	*r* = .01	*r* = .16
Support Seeking	*r* = .27*	*r* = -.04
Delegation	*rho* =.38*	*rho* = .06
Isolation	*rho* =.04	*rho* =.01
Accommodation	*r* = -.07	*r* = -.19
Negotiation	*rho* =.01	*rho* = -.06
Submission	*r* = -.00	*r* = .25*
Opposition	*rho* = .12	*rho* =.10

Note: Spearman correlation coefficients (*rho*) were utilized for correlations with coping scales that exhibited non-parametric characteristics, while Pearson correlation coefficients (*r*) were used for coping scales with normal distributions.
* $p < .05$.

function significantly associated with short-term effectiveness ($r = .19$, $p < .05$). No coping functions were significantly associated with long-term effectiveness. Emotion-focused coping function ($r = .19$, $p < .05$) and avoidance ($r = -26$, $p < .05$) were related to health-related effectiveness.

The eighth research question was: *What is the relationship between state and trait SPA and reasons for sport participation?* Weight Control ($r = .25$, $p < .05$) and Body Tone ($rho = .27$, $p < .05$) were the lone reasons for sport participation that were significantly correlated with Trait SPA; none were associated with State SPA.

3.2 DISCUSSION

This research explored how adolescent female athletes cope with SPA experiences. Although previous scientific literature has examined coping in sport (see Hoar, Kowalski, Gaudreau, & Crocker, 2006, for a review) and SPA (e.g., Kowalski et al., 2006; Sabiston et al., 2007) independently, this study attempted to contribute to the understanding of this phenomenon by specifically focusing on female athletes' management of SPA. A previous study conducted by Kowalski et al. (2006) employed a similar questionnaire format to gain an understanding of the coping strategies female adolescents utilize to deal with self-identified SPA experiences; they also examined the adolescent's coping function. Their taxonomy was utilized in this study to code the open-ended coping strategies provided by the female adolescent athletes.

3.2.1 Research Questions

My research showed that age was related to state SPA, but not trait SPA. Thus, although the literature has suggested that girls' satisfaction with body parts and overall appearance, as well as SPA, might fluctuate throughout adolescence (Crocker et al.,

2006; Levine & Smolak, 2002), my results showed that only state SPA was related to age. Even though studies have shown SPA to fluctuate, it does not appear to do so in a linear way. Crocker et al. (2006) showed an increase in trait SPA from grades 9 to 10, but a decrease in trait SPA from grades 10 to 11 (back to levels similar to grade 9). Similarily, Levine and Smolak (2002) suggested that although girls' satisfaction with body parts and overall appearance tends to decrease in early adolescence, it can then plateau or even increase slightly in middle and late adolescence. Thus, finding no relationship between age and trait SPA might reflect the complexity in understanding changes in trait SPA over adolescence. I am not aware of any other study that has explored the relationship between age and state SPA. However, in trying to understand whether this relationship is consisted with other data, post-publication analysis of the data from the Kowalski et al. (2006) study, with 398 adolescent females, supports the significant relationship between age and state SPA ($r = .16$, $p < .05$). Note that analysis of that data also demonstrated a non-significant relationship between age and trait SPA ($r = .06$, *n.s.*). The complex nature of the relationship between age and SPA is clearly unresolved.

The findings in my study were similar to Kowalski et al. (2006) in demonstrating a significant positive relationship between level of state SPA and the number of strategies implemented to cope with the experience ($r = .21$ for females in Kowalski et al. (2006), and $r = .34$ in the present study). Tamres et al.'s (2002) meta-analysis of sex differences showed that the severity of the stressor plays an important role in amount of coping utilized. Thus, it is not surprising that as state SPA increases the number of strategies implemented to deal with it also increases. That the relationship between state

SPA and the number of coping strategies remained significant even after accounting for age supports the robustness of this relationship.

Similar to the participants in Kowalski et al. (2006), the participants in my study reported a number of coping strategies. The top rated coping strategies, including social support, behavioural avoidance, short-term appearance management, cognitive avoidance, and acceptance, were similar to previous research. Social support was the most commonly reported coping strategy in my study. Tamres et al. (2002) reported the importance of social support as a coping strategy, especially for women. SPA research has shown women utilize friends and family as an important support structure as a way of coping with SPA and developing coping options (Niefer, Kowalski, Wason-Ellam, Crocker, & Stevens, 2003; Sabiston et al., 2007).

Behavioural and cognitive avoidance were among the most commonly reported coping strategies by the athletes in my study. Kowalski et al. (2006) found behavioural avoidance to be the most commonly reported coping strategy by female adolescents (reported by 41.5%), and cognitive avoidance the fourth most commonly reported coping strategy (reported by 20.4%). The emergence of avoidance across that study and my own is not surprising given that avoidance has been recognized by Lazarus (1991) as a key action tendency of anxiety. As well, Hart et al. (1989) stated that individuals high in SPA will attempt to avoid situations in which their bodies are on display or being scrutinized.

Another important coping strategy that emerged in my research was appearance management. This result is consistent with Sabiston et al. (2007) who found that 26 of 31 young women reported using appearance management strategies, primarily as indirect means to change the way they look. Similarly, Cox and Thompson (2000)

suggested appearance management strategies, such as covering the body with towels while walking to and from the dressing room, limit exposure of the body from others' view. Thus, appearance management might serve an important function in the experience of SPA as a way of limiting exposure of the body for social evaluation or presenting desired impressions to others.

Acceptance, another important strategy found in my study, has also emerged in other research. Kowalski et al. (2006) found acceptance to be reported by 19.6% of female adolescents. Hart et al. (1989) stated, "Many people – those that think others view their bodies favorably or who are disinterested in others' reactions to their physiques – may rarely experience social physique anxiety" (p. 96). In my interpretation, this is acceptance because it is consistent with the definition of acceptance provided in Kowalski et al.'s (2006) taxonomy of coping, which includes positive appraisal and minimizing the importance of the situation. Thus, the finding of reappraisal as a key coping in Sabiston et al. (2007) is similar to acceptance as defined in the taxonomy.

An interesting finding in my study is the emergence of humour as a top-rated coping strategy. Previously, humour has not been studied extensively in field of sport psychology (Sullivan & Dithurbide, 2007). Specifically, in regards to coping and sport psychology research, humour either has not been rated as highly (e.g., in Kowalski et al., 2006, humour was reported by 6.1% of participants compared to 23.3% in the present study) or taken other forms, such as making fun of one other (e.g., Sabiston et al., 2007). However, in most coping frameworks humour is absent as a coping dimension (see Skinner et al., 2003 and Tamres et al., 2002 for reviews of coping dimensions that appear across a wide range of coping scales). Despite this, one scale that humour does

appear on is the MCOPE, which was developed specifically to assess coping in sport (Crocker & Graham, 1995). However, in the Crocker and Graham (1995) study, humour had the second lowest mean among all coping strategies reported to manage a stressful performance situation. Taken together these findings suggest humour might be important to include in sport-coping research, but that it might be most relevant to SPA experiences as opposed to general performance stress. The reason for this is unclear; however, based on my research, humour should be considered as a potential coping dimension to include in future sport-coping research, particularly SPA research.

Contradictory to Kowalski et al. (2006), there was not a significant relationship between state and trait SPA. Although the limited sample size might be an issue due to power (i.e., $N = 73$), the non-significant relationship between state SPA and trait SPA could also be the results of the uniqueness of the sport environment. Sport is inherently physical and places athletes bodies on display; however, sport also offers an environment where participants often have similar physiques, priorities, and perspectives (Greenleaf, 2002). This has the potential to reduce the relationship between state and trait SPA because sport might be a context in which athletes' SPA experiences are very different from the world outside of sport. For example, an athlete with high trait SPA may find the sport environment as a 'safe-haven from the non-sport world', as it is a place where a powerful female body, which may be inappropriate in the larger context of societal culture, can be accepted (Greenleaf, 2002). Also, the sport environment might present a setting in which athletes are able to present positive self images because of self-selection processes into sport and because of the physical appearance changes associated with regular participation in sport (Crocker, Snyder, Kowalski, & Hoar, 2000). Alternatively, the sporting environment can highlight certain physical attributes

that can be hidden in general culture, such as when having team showers or wearing revealing team uniforms (Cox & Thompson, 2000).

Because of these various factors, the athletes' state SPA in sporting contexts might be very different from their trait levels of SPA. This suggests a disconnect between athletes' general levels of SPA and SPA experienced in sport-specific situations. Support for this discrepancy is shown in the mean values on State SPA and Trait SPA. In this study, SPA values were as follows: Trait SPA, $M = 2.85$, $SD = .82$; State SPA, $M = 51.52$, $SD = 23.00$; whereas Kowalski et al. (2006) reported the following: Trait SPA, $M = 3.21$, $SD = .93$; State SPA, $M = 52.20$, $SD = 24.83$. Thus, while there appears to be a discrepancy in Trait SPA between the two samples, the mean levels of State SPA were actually quite similar. A one-sample t-test was conducted to compare the means on State SPA and Trait SPA in my study with the means found in Kowalski et al. (2006). Because there is no population mean data on SPA, the assumption was made that the Kowalski et al. (2006) mean represents the best estimate of a SPA population mean with a similar age and geographical location. The result was a significant difference on Trait SPA, $t\ (72) = 3.71$, $p < .05$, but not State SPA, $t\ (72) = 0.23$, n.s. Therefore, while these athletes might experience relatively less Trait SPA compared to non-sport populations, their experiences in a sport-specific situation might be similar in terms of amount of state SPA experienced in more general contexts. Because this result is contradictory to previous research (i.e., Kowalski et al., 2006) and because of limited power due to sample size, we need more research to know if this result is meaningful and consistent.

Utilizing both the coded open-ended responses and Skinner's et al.'s (2003) Families of Coping scale within the framework of this study offered alternative

perspectives on coping with SPA. Thus, Skinner et al's (2003) framework allowed for looking at coping from a different perspective and method than the open-ended responses, although both tools had the similar goal of categorizing of coping responses. Skinner et al.'s (2003) Families of Coping are comprised of 12 categories, whereas the taxonomy utilized for coding the open-ended coping responses has up to 24 categories. Also, Skinner et al.'s (2003) framework suggests a hierarchical structure from coping strategies, to functions, to adaptational processes; whereas, the open-ended approach does not make the assumption of direct linkages between coping strategy, function, and effectiveness. Probably the biggest difference is that in the approach I used to implement Skinner et al.'s (2003) framework participants responded to strategies presented to them versus allowing them to identify their own strategies in their own words.

When exploring SPA based on coping strategies coded within the taxonomy, social support and acceptance demonstrated a significant positive relationship with trait SPA and state SPA. These results were similar to relationships found between Skinner et al.'s (2003) Families of Coping categories and state SPA and trait SPA. Delegation (e.g., "I tried to get sympathy from others") and support seeking (e.g., "I tried to get support through relationships") are two categories in Skinner et al.'s (2003) framework that include socially supportive type strategies; these two categories were the only two categories in Skinner et al.'s (2003) framework that demonstrated a significant positive relationship with state SPA. Alternatively, submission (e.g., "I tried to accept others opinions of me or the situation") was the only coping strategy in Skinner et al.'s (2003) framework that was related to trait SPA, which to me is very similar to acceptance in the

taxonomy. Thus, the links between coping and SPA seem to be fairly similar across the different methods to assessing coping.

However, female athletes in this study demonstrated that acceptance was *positively* related to trait SPA in both the open-ended questionnaire and Skinner et al.'s (2003) framework, which may contradict Hart et al.'s (1989) suggestion that acceptance is a key element in lowering trait SPA. Hart et al. (1989) stated that people who think others view their bodies favorably or who are disinterested in others' reactions to their physiques might rarely experience SPA, which to me again suggests acceptance because the definition of acceptance in the coping taxonomy includes both positive self-reappraisal and minimizing the importance of the situation to the self. Although seemingly contradictory, Hart et al. (1989) seems to be suggesting that acceptance pre-empts the experience of SPA, whereas my results suggest that if state SPA is experienced, people might choose to engage in acceptance strategies as a way of coping.

When exploring the relationship between SPA and coping function, the results partially supported previous research via a significant relationship between trait SPA and avoidance, but not problem-focused coping. The relationship with avoidance was expected because avoidance is considered to be the action tendency of anxiety (Lazarus, 1991). Although when compared to similar emotions, such as anger, anxiety is encroached in relative vagueness and uncertainty around what may be potentially harming to the individual; thus, the function to remove oneself from potentially threatening situations remains the goal. Hart et al. (1989) supported this finding in stating that individuals who are highly anxious with regard to how others view their physiques are likely to implement strategies for the purpose of avoiding SPA provoking situations. The finding that trait SPA was not related to problem-focused coping

function might be unexpected because, as Hart et al. (1989) also stated, remedial behaviours that are more problem-focused, such as physical activity and diet, can be utilized to improve the physique and thus alleviate the perceived problem. One reason for this finding might be that the participants were already highly involved in physical activity, and therefore, physical activity may be perceived as redundant to achieving a reduction of anxiety. The female athletes from this study did not report physical activity, and only reported diet once, as a potential strategy in the open-ended questionnaire; meaning that even the most likely problem-focused strategies were not used. This was likely because of the uniqueness of the environment (i.e., already engaging in physical activity), but also because they were responding to coping with s*tate* SPA experiences that might not best suit long-term body change strategies often associated with *trait* SPA.

State SPA and emotion-focused coping function was the only significant relationship that emerged. Tamres et al. (2002) demonstrated that women were more likely to use emotion-focused coping strategies that involved verbal expression, such as seeking emotional support, ruminating about the problems, and using positive self-talk. Therefore, it is no surprise that emotion-focused strategies would be reported by this sample of female athletes. Humour might, at least for the athletes in my study, reflect a specific form of verbal expression, and hence, a form of emotion-focused coping (which was supported by all 17 participants reporting humour for the purpose of emotion-focused coping). Alternatively, trait SPA was not related to emotion-focused coping function; however, it should not be a surprise that coping function in a specific situation is more strongly related to state SPA than trait SPA. This is probably especially true for emotion-focused coping because many of the strategies, such as humour and

communication with the evaluator in particular, are contextualized to deal with SPA in relation to the specific situation. Alternatively, the *level* of state SPA experienced appears to be unrelated to problem-focused and avoidance-focused coping. This suggests that while both problem-focused and avoidance-focused strategies were reported on the open-ended coping measure, their use does not seem to depend on how much state SPA is experienced.

Another question explored in my research was whether coping function is associated with effectiveness. Problem-focused coping function was the only function associated with short-term effectiveness, having a positive relationship. Emotion-focused coping function displayed a positive relationship and avoidance displayed a negative relationship to health-related effectiveness. No coping function was related to long-term effectiveness. Although this examination of effectiveness was done in an exploratory fashion, it is interesting to note that there was not a direct link between the function and the effectiveness or adaptive process. If there was a hierarchical relationship between functions and adaptive processes, as suggested by Skinner et al. (2003), we would have expected a relationship between specific coping goals (i.e., functions) and effectiveness/adaptive processes. This suggests support for the need to explore the effectiveness and adaptive function of strategies. It also indicates that the hierarchical approach from families of coping to adaptive processes through family functions, as suggested by Skinner et al. (2003) may not allow for the diversity that is seemingly apparent in the relationship between strategy, function, and effectiveness/adaptive processes (e.g., knowing the coping strategy does not necessarily imply that both function and effectiveness can be assumed).

When addressing the final research question in regard to the correlations between reason for sport participation and SPA, weight control and body tone were the only reasons for sport participation that were significantly correlated with trait SPA. Previous research has highlighted body appearance motives as having a positive relationship with anxiety (Frederick & Morrison, 1996). This is also consistent with the exercise literature that has demonstrated body tone and weight/appearance as reasons for participation (Crawford & Eklund, 1994; Sabiston et al., 2005). In a practical sense, trait SPA can potentially be important in understanding athletes' reasons for participation in certain sports, avoidance of others, and motivation to complete certain training tasks. For example, if these motives are in contradiction to some sport characteristics, such as increasing muscle mass or altering body composition, it may create resistance to participate in training or the sport itself. Although related to trait SPA, it is not known whether the weight control and body tone reasons for sport participation were appearance or performance motives (or both).

3.2.2 Limitations of the study

There were limitations of my study that should be acknowledged. In proposing this study, I was aware that the stringent criteria required for participation, *adolescent female athletes*, limited the potential sample size. This limitation grew in significance as there has been an increase in the complexity of gaining permission to contact athletes in Saskatchewan, due to changes in the "privacy" policies and procedures of sport organizations. In order to set up a meeting to introduce the study, I needed to rely on the provincial sport organizations to contact the coaches and request that they contact me, if they were interested in having their group of athletes participate. Although all provincial sport organizations were contacted and follow-ups were conducted, the

sample size being less than originally proposed did limit the statistical power of the research in identifying weak, but potentially significant, relationships. As an example, this might be relevant to the (non-significant) relationship between state SPA and trait SPA. The sample size of 73 in my study required a correlation of just under .20 (one-tailed) to be significant (the correlation was $r = .19$ in the present study), whereas the correlation in Kowalski et al. (2006) was significant at $r = .44$, which has a 95% confidence interval of $r = .36$ to .52 with 398 participants. The 95% confidence interval around a correlation of .19 includes the range $r = -.04$ to .40, suggesting that although not within the range of the Kowalski et al. (2006) study, because of the sample size in my study there remains an overlap in the confidence intervals between the two studies.

However, the inconsistency in the relationship between state and trait SPA might also reflect the limited validation evidence to date regarding the assessment of state SPA. While there is extensive validity information regarding the measurement of trait SPA (e.g., Eklund et al., 1996; Hart et al., 1989; Martin et al., 1997; McAuley & Burman, 1993; Motl & Conroy, 2000; Petrie et al., 1996), only Kowalski et al. (2006) specifically used the state SPA measure utilized in my study. In addition, measures that incorporate specific coping strategies may be more appropriate to use when studying state SPA, whereas general coping strategy measures may be more relevant when investigating trait SPA.

Another limitation was that there was no previous measure of Skinner et al.'s (2003) families of coping. Some coping research has discussed the adaptational processes of coping, such as Skinner et al. (2003), but no research to date has looked at this framework within the context of a specific construct such as SPA. Therefore, it was difficult to establish how best to use their framework within the current study and how to

appropriately measure those coping dimensions. Throughout the development of this study's questionnaire, Skinner et al's (2003) families of coping was incorporated into a checklist format with associated phrases perceived as appropriate representation to each respective category. However, despite this attempt, much more work needs to be put into the development and validation of the measure to adequately represent Skinner et al.'s (2003) framework. Skinner et al.'s (2003) framework is potentially useful because of the broad scope of coping it encompasses; however, a challenge will be how best to operationally define each of the families of coping. It is unlikely terms such as submission, delegation, and accommodation hold intuitive meaning to participants. It is also a challenge how best to represent these families in lay language. For example, how best to capture aspects of delegation, such as whining, self-pity, complaining, and maladaptive help-seeking, in a way that is understandable to participants, as well as finding ways to encourage reporting of these potentially undesirable coping behaviours, is unclear. Also, using multiple items to assess each of the families would also add strength to the measurement of coping within the families of coping framework.

It is important to acknowledge that neither Kowalski et al.'s (2006) taxonomy of coping nor Skinner et al.'s (2003) families of coping were developed specifically for use within the sport context. One study has applied the taxonomy of coping to understand how women and men manage drive for muscularity (Kyrejto, Mosewich, Kowalski, Mack, & Crocker; in press), but there is a need for future researchers to assist in identifying the validity of these measures for sport related research.

In attempting to understand the coping strategies utilized by female adolescent women, the concept of self-selection is a potential barrier in understanding those who no longer participate. Research has identified that women with high SPA prefer settings

that de-emphasis the physique and that some are more likely to drop out of structured exercise when compared to women with lower SPA (Crawford & Eklund, 1994). Other research has identified that generally non-exercisers have higher trait SPA than regular exercisers and athletes (Van Raalte, Cunningham, Cornelius, & Brewer, 2004). Thus, it seems that there may be a demographic that may utilize dropping-out as a coping strategy; but because they are not in sport they were not in my study. Future research may need to identify individual athletes that have dropped out to gain a more complete understanding of what dropping out means in the context of coping with SPA in sport.

Finally, many researchers have stated the complexities of working with self-reported data in trying to understand the coping process (Lazarus, 1999). Assessment of coping is reliant on participant's recollection and interpretation to give an accurate, reliable, and detailed account of the situation and their responses. Lazarus (1999) acknowledged these limitations, but identified the need to continue using self-report methodologies in coping research. He also identified some potential precautions that researchers can take when using self-report methods, such as utilizing multiple coping measures. In this study, the open-ended questionnaire, coded by a coping taxonomy in the body domain (Kowalski et al., 2006), combined with Skinner et al.'s (2003) families of coping allowed me to explore the coping process within different frameworks. Although using multiple coping measures did not overcome the limitations in using self-report data, it helped me to see if there was consistency across these different methods.

3.2.3 Strengths of Study

There were two primary strengths of my study. First, it builds upon the Kowalski et al. (2006) study to extend coping with SPA in adolescence to the sport context. Although the Kowalski et al. (2006) study is useful for understanding how

adolescents coping with SPA across a range of contexts, it provides little information about coping with SPA in sport. The emergence of humour, in particular, as well as the non-significant relationship between state and trait SPA, suggests that the SPA experience and the ways in which athletes cope with SPA might not be easily understood from studies with more general contexts. The inclusion of a wide range of sports, provides some generalizable support for the results. Also, the Kowalski et al. (2006) study provided the taxonomy for the coding of the athletes' self-reported coping on the open-ended measure. Although the taxonomy was not developed specifically for my Masters thesis, I played a significant role in the development of that published taxonomy, and thus, my thesis is a natural extension of that research to the sport context.

The second primary strength in my research was the inclusion of multiple coping frameworks. Lazarus (1999) emphasized importance of using self-report to assess the coping process, but he also discussed the strengths of assessing coping using multiple measures. Hence, I used both the open-ended framework from Kowalski et al. (2006) along with a rating scale based on Skinner et al.'s (2003) families of coping framework. Although there were some differences in the findings due largely to different categories within the two measures, there were some important similarities that emerged such as the use of social support and acceptance. The use of these frameworks also allowed me to assess range of coping constructs from coping strategies, to coping function, to coping effectiveness.

CHAPTER 4

4.1 SUMMARY AND CONCLUSIONS

This research explored how adolescent female athletes cope with SPA experiences. The top rated coping strategies, including social support, behavioural avoidance, short-term appearance management, cognitive avoidance, and acceptance, were similar to previous research. Alternatively, humour was also identified as a top-rated strategy utilized by the female adolescents of this study. This study supported previous research in demonstrating a significant positive relationship between level of state SPA and the number of strategies implemented to cope with the experience. Contradictory to previous research there was not a significant relationship between state SPA and trait SPA.

Utilizing both the coded open-ended responses and Skinner et al.'s (2003) Families of Coping within the framework of this study offered a unique relationship comparison of SPA and coping. Within both frameworks social support and acceptance, in particular, emerged as consistent coping strategies associated with state and trait SPA, respectively. However, because coping strategies on the open-ended questionnaire were associated with a variety of coping functions, this suggested support against Skinner et al.'s (2003) notion of a hierarchy of coping.

Without a measure to adequately assess Skinner et al.'s (2003) families of coping it is difficult to utilize the framework when trying to understand the SPA experiences of athletes, primarily because it was not developed for the body domain. Also, one has to question the appropriateness of the applicability of such a general framework to a specific context, such as sport. For example, physical activity would be very difficult to categorize within Skinner et al.'s (2003) framework, especially within the context of coping with SPA. While they suggest physical activity is a type of accommodation, within the context of coping with SPA, physical activity might just as easily be classified as a problem-solving strategy because of its potential to alter the body. Without a clear classification, it is also then difficult to know the adaptive function of a strategy within a hierarchical framework. On the other hand, the open-ended measure utilized a taxonomy that was developed specifically to assess coping within the body domain. The open-ended measure also does not assume function, which accommodates for strategies that are used for multiple functions when coping with SPA. At present, while Skinner et al.'s (2003) framework is an important step towards an integration of coping concepts and literature, I do not think their framework has been sufficiently developed to adequately assess coping with SPA, particularly in the sport context.

4.2 RECOMMENDATIONS FOR FUTURE RESEARCH

It is left for future research to identify and clarify some of the following questions that will assist in understanding the complexities associated with coping with SPA in sport research.

As stated previously, to date little is known about the complex process of coping surrounding SPA and sport. Because little is known, this study was exploratory in

nature, and thus did not utilize hypotheses. However, the next step is to test specific hypotheses as to how young women cope with SPA in sport, and more specifically to test the findings of my work for replicability.

Future SPA research should consider age and development issues. As this was an exploratory study, and not a developmental study, developmental issues were not fully explored. However, age did emerge as related to state SPA, suggesting that developmental issues might be important to better understand the SPA experience. Previous research has shown that both body image and trait SPA fluctuate throughout adolescence (Crocker et al., 2006; Levine & Smolak, 2002), suggesting that the SPA experience is likely only best understood through longitudinal research methods.

Another issue that needs further exploration is the relationship between state and trait SPA, particularly within the context of sport. Was the non-significant relationship found in my study a true result or was it the result of modest power and potentially underdeveloped measurement of state SPA? While I tend to think that the context of sport might be unique in the experience of SPA, this relationship might be stronger had state SPA been operationally defined in other ways, such as the number of state SPA experiences or the duration of the SPA experience - as opposed to asking about the situation in the past year in which the highest SPA was experienced. Conceptually, the potential disconnect between state and trait emotion could also be facilitated by the relevance of the perceived threat of the situation. If the individual does not see the sport/specific environment as a threat, the level of state emotion might not be consistent with the trait level of emotion. Clearly, one study does not provide a definitive answer to this question. Future research should continue to explore the relationship between

state and trait SPA, particularly in sport, and this quest may be better addressed by the development of more sport-relevant measures of state and trait SPA.

Further clarification of the relationship of both state and trait SPA with avoidance, at the strategy and functional level, as well as acceptance, seems to be of significant importance to understanding coping with SPA. The adaptational process linking associated effectiveness and function of coping responses needs to be further explored.

Future research will also need to establish the meaningfulness of the significant ($p < .05$) relationships between coping strategies and SPA identified in this study. The low amount of variance accounted for (less than 10% of the variance on SPA was explained by coping strategies) indicates that there is a lot more that is occurring than matching the state and trait SPA variables with specific coping categories. Future research must address if the small amount of the variance may simply be due to a weak relationship between the variables or, alternatively, that coping is complex.

It is also important to note that in the questionnaire an example of "Talk to a friend" was given to assist participants in conceptualizing the task of identifying coping strategies to manage their state SPA experience. In future studies, alternative examples should be offered to identify and/or diversify any effect the example might have had on the frequency of the report of social support.

Another interesting key issue is to further understand who is held responsible in assisting with effective management of female adolescents athletes' experiences with SPA. As much as young women's SPA experience is owned by them as individuals, it is also a shared ownership with coaches, teachers, parents, and media because of the

pressures placed on young women around body image. Intervention and education of these social partners will need to be identified through future research.

Contexts and situations are important in understanding the nuances in the way adolescent female athletes cope with SPA. The context (e.g., type of sport) might pre-dispose athletes to certain types of situations in which SPA might be experienced. Although looking at specific situations was beyond the scope of my study (i.e., the purpose was to have them self-report on coping in a situation salient to them), many situations were identified as SPA provoking, such as school/peer gatherings, wearing swimming suits, intimate situations, and shopping. Teasing out these specific scenarios and grouping experiences by situation or context may lead to finding unique moderating or mediating relationships between SPA and important coping variables, such as attire or type/number of spectators. Identifying moderators might also help an understanding of nuances of coping that may be more/less appropriate for that context or situation. Future research might need to implement multiple methodologies to fully explore these types of questions because of the apparent complexity of adolescent female athletes' SPA experiences.

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APPENDIX A

Ethics approval

UNIVERSITY OF SASKATCHEWAN
BEHAVIOURAL RESEARCH ETHICS BOARD
http://www.usask.ca/research/ethics.shtml

NAME: Kent Kowalski
College of Kinesiology

Beh #2001-62

DATE: August 5, 2005

The University of Saskatchewan Behavioural Research Ethics Board has reviewed the modifications to the Application for Ethics Approval for your study "Coping with Social Physique Anxiety in Adolescence" (Beh #2001-62).

1. The modification(s) to your study, received August 3, 2005, has been APPROVED.

2. Any significant changes to your study should be reported to the Chair for Committee consideration in advance of its implementation.

3. The term of this approval remains five years from the original approval date.

4. In order to maintain ethics approval, a status report must be submitted to the Chair for Committee consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for further instructions: http://www.usask.ca/research/ethics.shtml.

I wish you a successful and informative study.

Dr. Linda Ellam, Vice chair

Dr. Valerie Thompson, Chair
University of Saskatchewan
Behavioural Research Ethics Board

VT/cc

Office of Research Services, University of Saskatchewan
Room 1607, 110 Gymnasium Place, Box 5000 RPO University, Saskatoon SK S7N 4J8 CANADA
Telephone: (306) 966-8576 Facsimile: (306) 966 8597
http://www.usask.ca/research

APPENDIX B

Consent / Assent Form

Coping strategies utilized by adolescent female athletes to manage social physique anxiety

CONSENT/ ASSENT FORM

You are invited to participate in a study entitled **Coping strategies utilized by adolescent female athletes to manage social physique anxiety**. Please read this form carefully, and feel free to ask questions you might have.

Researchers: Cory Niefer, College of Kinesiology, University of Sask., (306) 230-0184
Dr. Kent Kowalski, College of Kinesiology, University of Sask., (306) 966-0179

Purpose and Procedure: We are conducting a study to look at how adolescent female athletes try to manage anxiety related to their body appearance. More specifically we are interested in knowing the effectiveness of different strategies female adolescent athletes utilize in dealing with others evaluating their appearance. It is unclear at the present time why some individuals choose to engage in unhealthy behaviours (e.g., smoking, avoidance of physical activity settings, high restrained eating) while others choose healthy behaviours (e.g., physical activity participation, balanced diet) to manage their concerns about their bodies. Participation in this study involves filling out a questionnaire package that asks about social physique anxiety and how you dealt with a previous experience related to your body being evaluated by others. The questionnaire package will take approximately 25-30 minutes to complete.

Potential Risks: There is minimal risk for physical or psychological harm in this research. There is some discomfort expected in recalling an anxiety-provoking situation; however, this should present minimal psychological risk.

Potential Benefits: These results should provide insight into behaviour choices made by female adolescent athletes, which may allow coaches, sport administrators and health professionals to more effectively promote healthy lifestyles. However, there is no guarantee of these benefits.

Confidentiality: The results of this study will be used for the purpose of a Masters of Science Degree Thesis and the results will be presented at a scientific conference, as well as potentially published in a scientific journal. The results will be presented as group data only, so that it will not be possible to identify any individuals that participate in the study. Moreover, the consent forms will be stored separately from the questionnaire, so that it will not be possible to associate a name with any given set of responses. Your name or other identifying information is not required on the questionnaire.

Right to Withdraw: Your participation is voluntary, and you may withdraw from the study for any reason, at any time, without penalty of any sort. You also may refuse to answer any individual questions. The decision to withdraw or not answer particular questions will NOT result in any loss of services in sport or other negative consequences. If you withdraw from the study at any time, any data that you have contributed will be destroyed at your request.

Questions: If you have any questions concerning the study, please feel free to ask at any point; you are also free to contact the researchers at the numbers provided above if you have questions

at a later time. This study has been approved on ethical grounds by the University of Saskatchewan Behavioural Research Ethics Board on August 5th, 2005. Any questions regarding your rights as a participant may be addressed to that committee through the Ethics Office (966-2084). Out of town participants may call collect. A summary of the research results will be available upon request.

Parental/Guardian Assent: Parent/Guardian Assent must be obtained for all participants under 18 years of age. My signature on this sheet indicates that I will allow my son or daughter _____ to participate in the study **Coping strategies utilized by female adolescent athletes to manage social physique anxiety**. It indicated that I understand the following.

1. That my son or daughter is invited to participate in this research project.
2. Participation in this research project is not part of my son or daughter's regular sport requirements and is an optional activity.
3. Participation involves filling out a questionnaire package that asks about social physique anxiety and how they dealt with a specified experience. The questionnaire package will take approximately 25-30 minutes to complete.
4. My son or daughter may withdraw at any time, for any reason, and this will not cause anyone to be upset or angry, and will not result in any type of penalty.
5. There is minimal risk for physical or psychological harm in this research. There is some discomfort expected in recalling an anxiety-provoking situation; however, this should present minimal psychological risk.
6. The contribution of my son or daughter will be kept private and not shared with other children, their parents, or their coaches.

_____ _____

(Name of Parent/ Guardian) (Date)

_____ _____

(Signature of Parent/ Guardian) (Signature of Researcher)

Consent to Participate: I have read and understood the description provided above; I have been provided with an opportunity to ask questions and my questions have been answered satisfactorily. I consent to participate in the study described above, understanding that I may withdraw this consent at any time. A copy of this consent form has been given to me for my records.

_____ _____

(Name of Participant) (Date)

_____ _____

(Signature of Participant) (Signature of Researcher)

APPENDIX C

Questionnaire

THANK YOU FOR AGREEING TO PARTICIPATE IN THIS RESEARCH PROJECT!

This package contains **twenty** pages in total, including this cover page. Page 2 includes a set of questions that tells us more about you and your background. Pages 3-20 include questions about your thoughts and feelings about your body appearance in various situations and what you do in these situations. Some of these questions will require you to write a statement. Other questions can be completed similar to that of a magazine survey, by choosing from a set of responses or by filling in some blanks. For example, you might be asked about the following statement:

	Not At All	A Little	Somewhat	Quite A Bit	Very Much
I read a magazine	☑	☐	☐	☐	☐
I hang out with my friends	☐	☐	☑	☐	☐

Note:
- You can mark the square by either marking with a check, a cross (X), or filling it in (■).
- Only select **ONE** square when answering the question.
- If you do not understand a question, **please ask for help**.
- Please **DO NOT** skip any questions. Answer each question as best as you can. ** **This is very important** **
- After completing a section you will be asked to STOP and wait for further instructions from the researcher.

Your name is not required anywhere in this package. All of your responses will remain **confidential**. No persons other than the members of the research team will have access to your responses.

There are no "right" or "wrong" answers. Be as honest and as accurate as you can in answering each question.

TELL US ABOUT YOURSELF

Instructions:

We are interested in learning your background. Please follow the directions carefully, and answer **ALL** of the questions.

Remember that your answers will remain private and confidential and will be seen only by the researcher

1. Gender (Circle one): Male Female

2. How old are you ? _____years-old

3. How tall are you? ____feet ____inches OR _____meters

4. How much do you weigh? _____ lbs. OR _____kg.

5. Have you participated in any organized sports (teams or clubs with organized leagues or competitions)? Yes___ No___
   If yes, please indicate below the sport(s), team/Club Name, and the level or sport.

SPORT	TEAM/CLUB NAME	LEVEL OF SPORT (CLUB/PROV./NATIONAL/INTERNATIONAL)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

STOP

PLEASE WAIT FOR FURTHER INSTRUCTION

6. Please describe below what types of situations make you feel uncomfortable or nervous about your body being seen by other people.

7. Do you have any overall concerns about your body?

8. If yes, how do you deal with those concerns?

(use the back if more space is needed)

STOP

PLEASE WAIT FOR FURTHER INSTRUCTION

Instructions:

We would now like you to remember a specific situation in sport that made you feel uncomfortable or nervous because your body was seen or evaluated by other people. We would also like you to recall the ways that you handled or dealt with that experience. For example, many adolescents report feeling uncomfortable or nervous about their body appearance when:

- being placed in a new situation;
- wearing a bathing suit

Take a minute and think about a time in sport *in the last year* when you felt most uncomfortable or nervous about your body in front of other people.

Remember that your answers will remain private and confidential and will be seen only by the researcher

9. Please describe a situation in sport that made you feel uncomfortable or nervous because your body was seen or evaluated by other people (please describe the situation that made you feel the **most** uncomfortable in the **past year**).

_____

_____

_____

_____

10. Why did this situation make you uncomfortable or nervous?

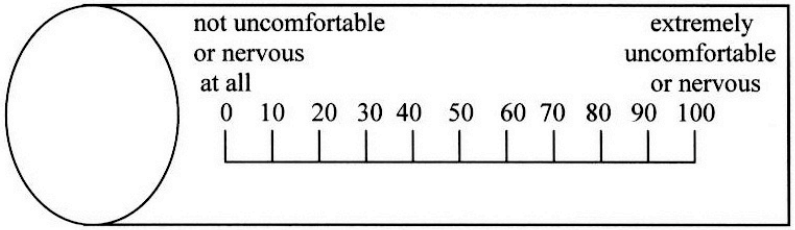
_____

_____

_____

_____

11. Please indicate how uncomfortable or nervous you were in the situation (by marking an 'X' on the scale within the thermometer):



STOP

PLEASE WAIT FOR FURTHER INSTRUCTION

Instructions:

Now we are interested in the specific ways you used to deal with the situation you described.

In the blank spaces provided in the tables in the following pages, list all of the things you did in trying to manage the situation. Please list only one strategy per page.

Only fill in as many strategies as you actually tried. It does not matter if the strategy used was successful or not.

Next, for each strategy indicate:

The reason you used the strategy, in relation to:

(a) trying to change the situation,
(b) helping you manage or control your feelings, and/or
(c) physically and/or mentally tried to avoid of the situation.

Also, the effectiveness of the strategies

(d) to reduce the anxiety during the specific situation,
(e) to prevent the anxiety from reoccurring, and/or
(f) to deal with the anxiety in a healthy way.

FOR EXAMPLE:

To manage the uncomfortable or nervous situation, I: Talked to a Friend

Reason you used the strategy	Yes	No
(a) I used this strategy to try *to change the situation*:	☐	☑
(b) I used this strategy *to manage or control my feelings*:	☑	☐
(c) I used this strategy *to physically and/or mentally avoid* the situation:	☑	☐

Effectiveness of the Strategy	Not At All	A Little	Somewhat	Quite A Bit	Very Much
(d) Was this strategy effective in reducing the anxiety *during this specific situation*?	☐	☐	☑	☐	☐
(e) Will this strategy be effective in reducing or eliminating similar experiences *from happening in the future*?	☐	☑	☐	☐	☐
(f) I perceive that this was a *healthy way* to deal with this situation.	☐	☐	☐	☑	☐

To manage the uncomfortable or nervous situation, I: _____

Reason you used the strategy	Yes	No
(a) I used this strategy to try *to change the situation*:	☐	☐
(b) I used this strategy *to manage or control my feelings*:	☐	☐
(c) I used this strategy *to physically and/or mentally avoid* the situation:	☐	☐

Effectiveness of the Strategy	Not At All	A Little	Somewhat	Quite A Bit	Very Much
(d) Was this strategy effective in reducing the anxiety *during this specific situation*?	☐	☐	☐	☐	☐
(e) Will this strategy be effective in reducing or eliminating similar experiences *from happening in the future*?	☐	☐	☐	☐	☐
(f) I perceive that this was a *healthy way* to deal with this situation.	☐	☐	☐	☐	☐

To manage the uncomfortable or nervous situation, I: _____

Reason you used the strategy	Yes	No
(a) I used this strategy to try *to change the situation*:	☐	☐
(b) I used this strategy *to manage or control my feelings*:	☐	☐
(c) I used this strategy *to physically and/or mentally avoid* the situation:	☐	☐

Effectiveness of the Strategy	Not At All	A Little	Somewhat	Quite A Bit	Very Much
(d) Was this strategy effective in reducing the anxiety *during this specific situation*?	☐	☐	☐	☐	☐
(e) Will this strategy be effective in reducing or eliminating similar experiences *from happening in the future*?	☐	☐	☐	☐	☐
(f) I perceive that this was a *healthy way* to deal with this situation.	☐	☐	☐	☐	☐

To manage the uncomfortable or nervous situation, I: _____

Reason you used the strategy	Yes	No
(a) I used this strategy to try *to change the situation*:	☐	☐
(b) I used this strategy *to manage or control my feelings*:	☐	☐
(c) I used this strategy *to physically and/or mentally avoid* the situation:	☐	☐

Effectiveness of the Strategy	Not At All	A Little	Somewhat	Quite A Bit	Very Much
(d) Was this strategy effective in reducing the anxiety *during this specific situation*?	☐	☐	☐	☐	☐
(e) Will this strategy be effective in reducing or eliminating similar experiences *from happening in the future*?	☐	☐	☐	☐	☐
(f) I perceive that this was a *healthy way* to deal with this situation	☐	☐	☐	☐	☐

To manage the uncomfortable or nervous situation, I: _____

Reason you used the strategy	Yes	No
(a) I used this strategy to try *to change the situation*:	☐	☐
(b) I used this strategy *to manage or control my feelings*:	☐	☐
(c) I used this strategy *to physically and/or mentally avoid* the situation:	☐	☐

Effectiveness of the Strategy	Not At All	A Little	Somewhat	Quite A Bit	Very Much
(d) Was this strategy effective in reducing the anxiety *during this specific situation*?	☐	☐	☐	☐	☐
(e) Will this strategy be effective in reducing or eliminating similar experiences *from happening in the future*?	☐	☐	☐	☐	☐
(f) I perceive that this was a *healthy way* to deal with this situation.	☐	☐	☐	☐	☐

STOP

PLEASE WAIT FOR FURTHER INSTRUCTION

Instructions:

The following is a list of some ways that other adolescents cope with these types of concerns. Read each of the following statements carefully and indicate the degree to which the statement is characteristic of the situation that you provided, according to the following scale.

1 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried solving the problem.* Examples: - Thought of a plan to solve the problem - Tried to figure out how to stop it from happening again	☐	☐	☐	☐	☐

2 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried to find out more information.* Examples: - Asked others what they thought about the situation - Observed what others did in similar situation	☐	☐	☐	☐	☐

3 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I did not know what to do, so I did nothing.* Examples: - My mind went blank - I couldn't think of anything to do, so I just stopped trying and did nothing	☐	☐	☐	☐	☐

4 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried to escape the situation.* Examples: - Tried to leave - I tried to just think of something else (escape through my mind)	☐	☐	☐	☐	☐

5 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried to deal with it myself.* Examples: - Controlled my behavior and emotions - Sucked it up and didn't draw attention to the situation	☐	☐	☐	☐	☐

6 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried to get support through relationships.* Examples: - I tried to get others to help - Looked to my friends or family to provide comfort - Used a spiritual aid	☐	☐	☐	☐	☐

7 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried to get sympathy from others.* Examples: - I complained to others. - Let others know I felt shameful	☐	☐	☐	☐	☐

8 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried to avoid other people.* Examples: - I tried to stay away from people - I tried to hide that there was anything wrong	☐	☐	☐	☐	☐

9 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried to think about the situation with a positive slant.* Examples: - I tried to think about what I would learn from this situation - I thought of reasons the other person's opinion of me doesn't matter	☐	☐	☐	☐	☐

10 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: I tried to negotiate with others.* Examples: - I tried to make others think differently about me and/or the situation - Persuaded others to see it from my point of view	☐	☐	☐	☐	☐

11 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: <u>I tried to accept others opinions of me or the situation.</u>* Examples: - I changed the way I viewed the situation or myself - Went along with what others thought about the situation	☐	☐	☐	☐	☐

12 *of* 12	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
(a) *To manage this situation: <u>I tried to challenge someone's opinion or the situation.</u>* Examples: - I blamed the situation on someone - Got angry at someone or the situation for being unfair	☐	☐	☐	☐	☐

STOP

PLEASE WAIT FOR FURTHER INSTRUCTION

Instructions:

Read each of the following statements carefully and indicate the degree to which the statement is characteristic or true of you, according to the following scale

	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
I wish I wasn't so uptight about my physique/figure.	☐	☐	☐	☐	☐
There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.	☐	☐	☐	☐	☐
Unattractive features of my physique/figure make me nervous in certain social settings.	☐	☐	☐	☐	☐
In the presence of others, I feel apprehensive about my physique/figure.	☐	☐	☐	☐	☐
I am comfortable with how fit my body appears to others.	☐	☐	☐	☐	☐

	Not at all characteristic	Slightly characteristic	Moderately characteristic	Very characteristic	Extremely characteristic
It would make me uncomfortable to know others were evaluating my physique/figure.	☐	☐	☐	☐	☐
When it comes to displaying my physique/figure to others, I am a shy person.	☐	☐	☐	☐	☐
I usually feel relaxed when it is obvious that others are looking at my physique/figure.	☐	☐	☐	☐	☐
When in a bathing suit, I often feel nervous about the shape of my body.	☐	☐	☐	☐	☐

STOP

PLEASE WAIT FOR FURTHER INSTRUCTION

Instructions:

People participate in sport for a variety of reasons. When people are asked why they participate in sport, their answers are sometimes based on the reasons they believe they ***should*** be participating in sport. We want to know the reasons people ***actually*** have for participating in sport. Also, please note that we are not interested in the reasons when you originally got into sport, but the reasons that motivate you to participate in sport ***now***. Please score each of the below reasons on a scale of 0-10 as honestly as possible; with 10 being an extremely important reason and 0 indicating that this reason is not at all relavent to you. If you have a reason that you participate in sport that is not on the list please add it in the other category and rank it in a similar way.

_____ Mood Regulation (cope with stress, anxiety, sadness, depression; to improve energy level and mood…)

_____ Health and Fitness (improve endurance, strength; resistance to illness and disease…)

_____ Body Tone (improve my body shape, alter a specific body part…)

_____ Future Opportunites (job opportunities; school opportunities…)

_____ To Win (win medals, placement on teams…)

_____ Enjoyment (meet new people, socialize with friends…)

_____ Attractiveness (improve my appearance, be more attractive…)

_____ Respect from Others (gain respect from family and peers…)

_____ Respect for Myself (gain self confidence, esteem, respect…)

_____ Weight Control (lose weight, put on weight or maintain current weight…)

_____ Financial Gains (scholorships and bursuries, to one day earn money from doing your sport…)

_____ Challenge (overcome obstacles, to do something that is individual, commitment to a goal…)

_____ Other, Please Specify_____

_____ Other, Please Specify_____

_____ Other, Please Specify_____